

Design

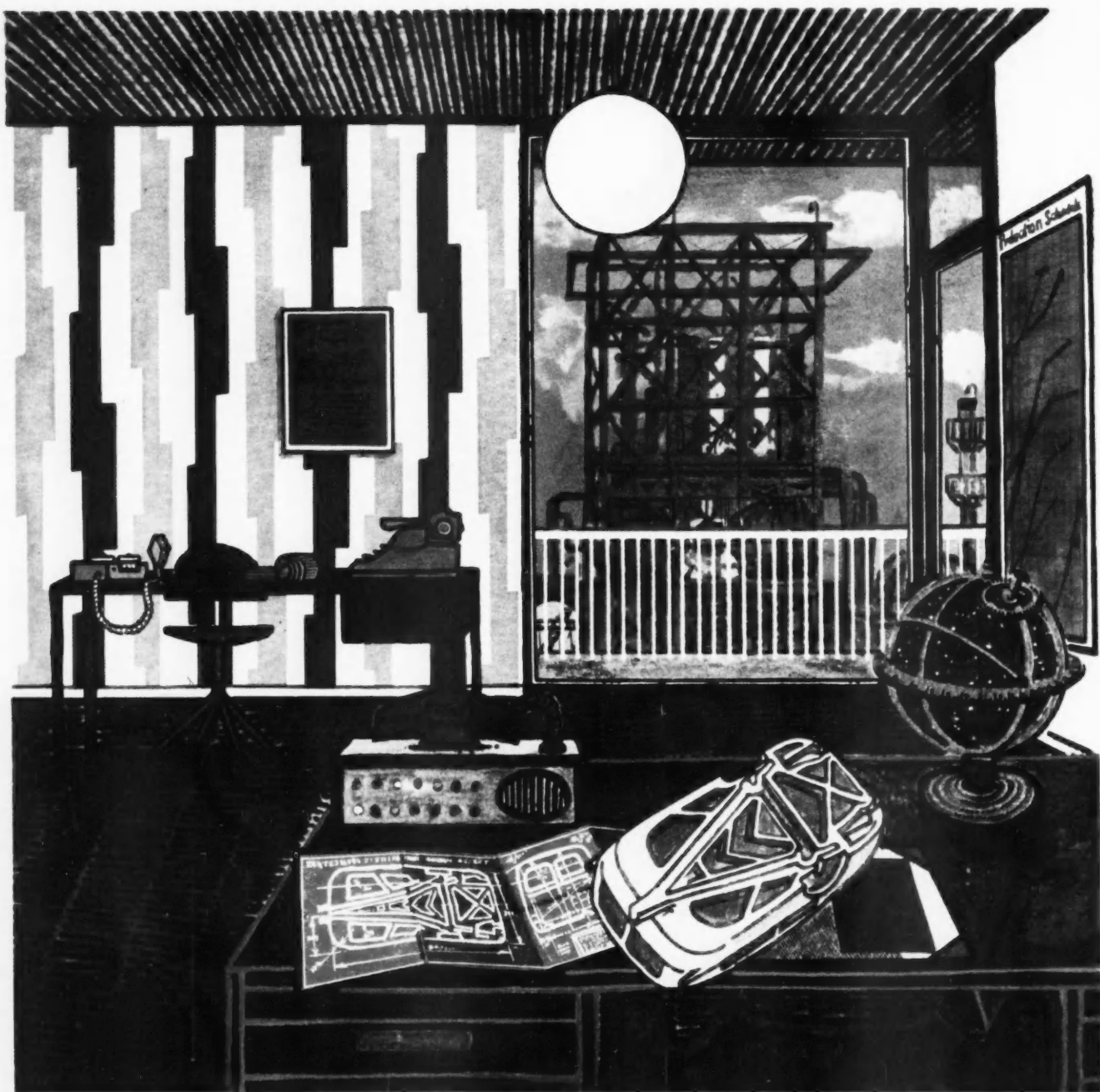
Council of Industrial Design

136

April 1960

Price 3s





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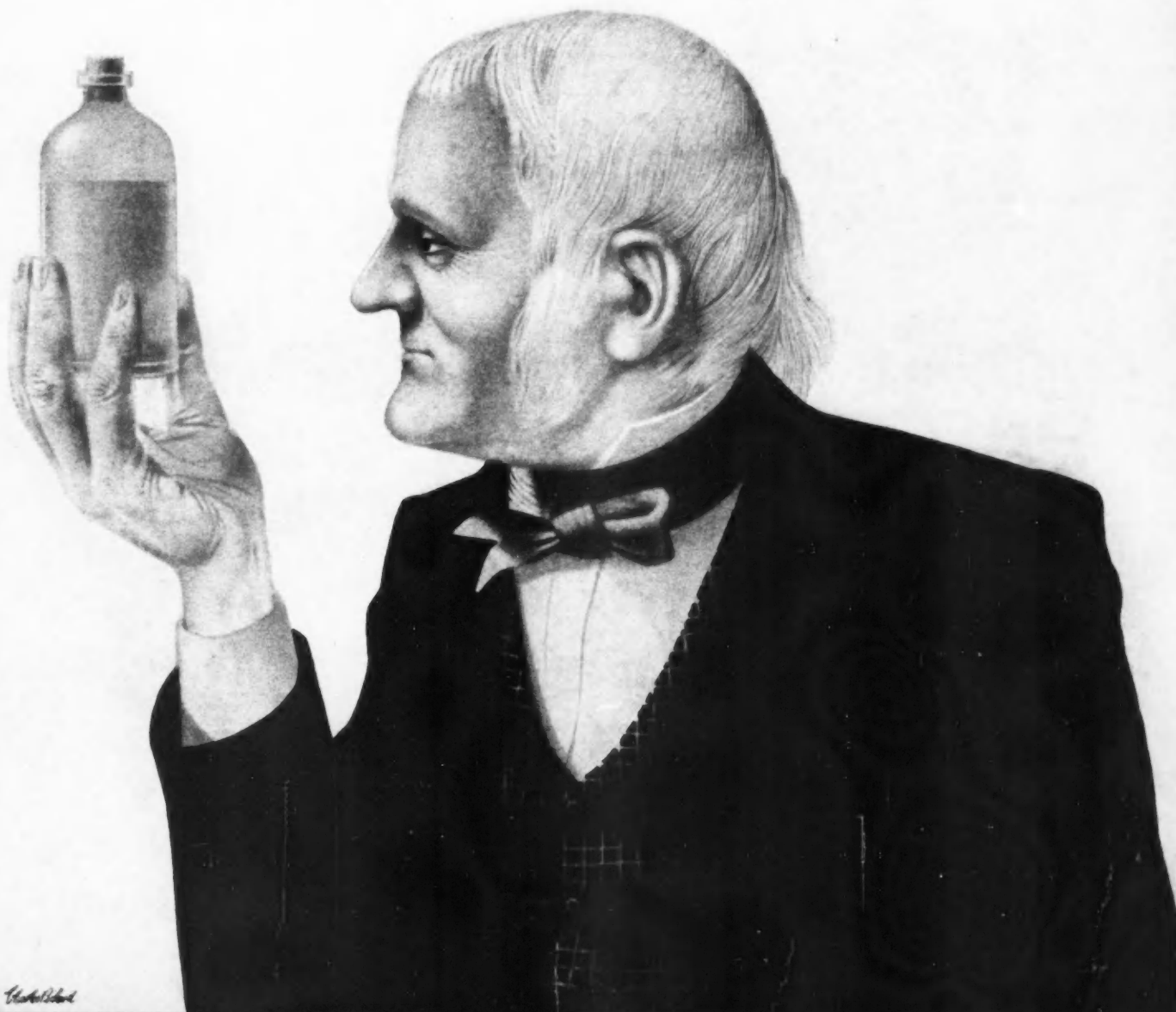
ANCESTORS OF AN INDUSTRY

JOHN DALTON was the first to propound, in 1808, the theory that the atom was the smallest particle of matter imaginable—a theory that was not assailed until more than a century later. A similar theory had been put forward by Democritus two thousand years earlier, which was restated by Newton one hundred years before Dalton. Where Dalton excelled was in formulating these theories in a way that explained known chemical processes and enabled deductions to be made which could be submitted to the test of practical experiment. All matter, said Dalton, is composed of a great number of extremely small particles or atoms. It is impossible to conceive the number of particles in all matter but if the subject is limited—say, to a given volume of a gas—it is clear that the number of particles must be finite. Chemical analysis and synthesis do no more than separate atoms one from another, and reunite them. In other words, atoms are indestructible and cannot be created. Dalton also held that it was possible and important to ascertain the relative weights of different atoms, and he carried out experiments to this end.

Dalton's theory, unaltered in its essentials, is still used to explain the laws of chemical combination.



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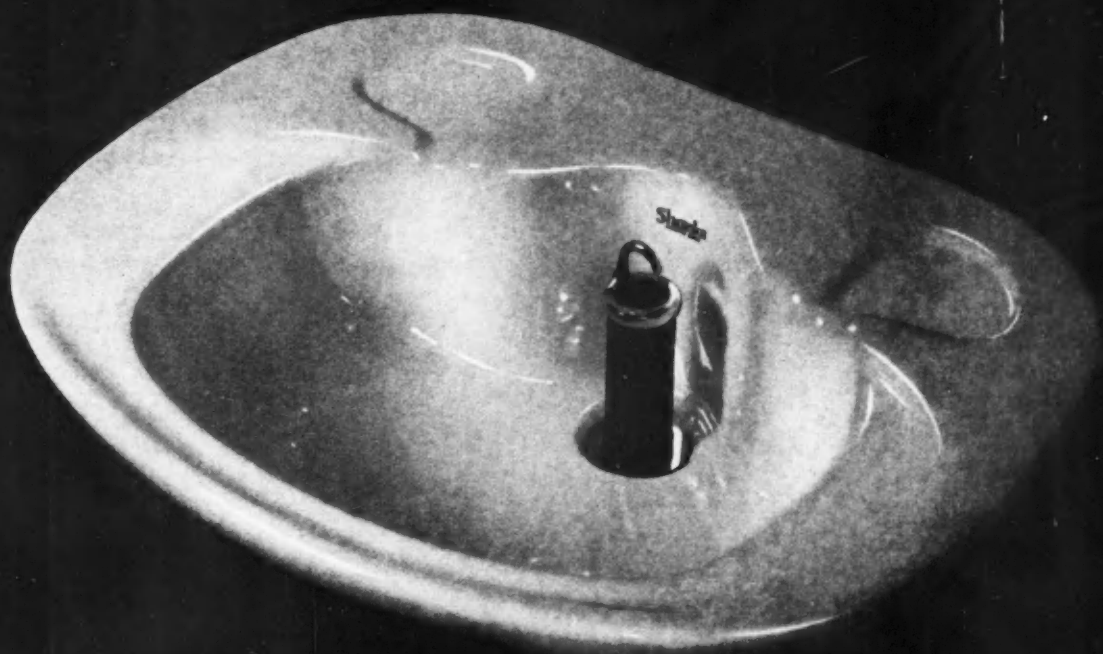


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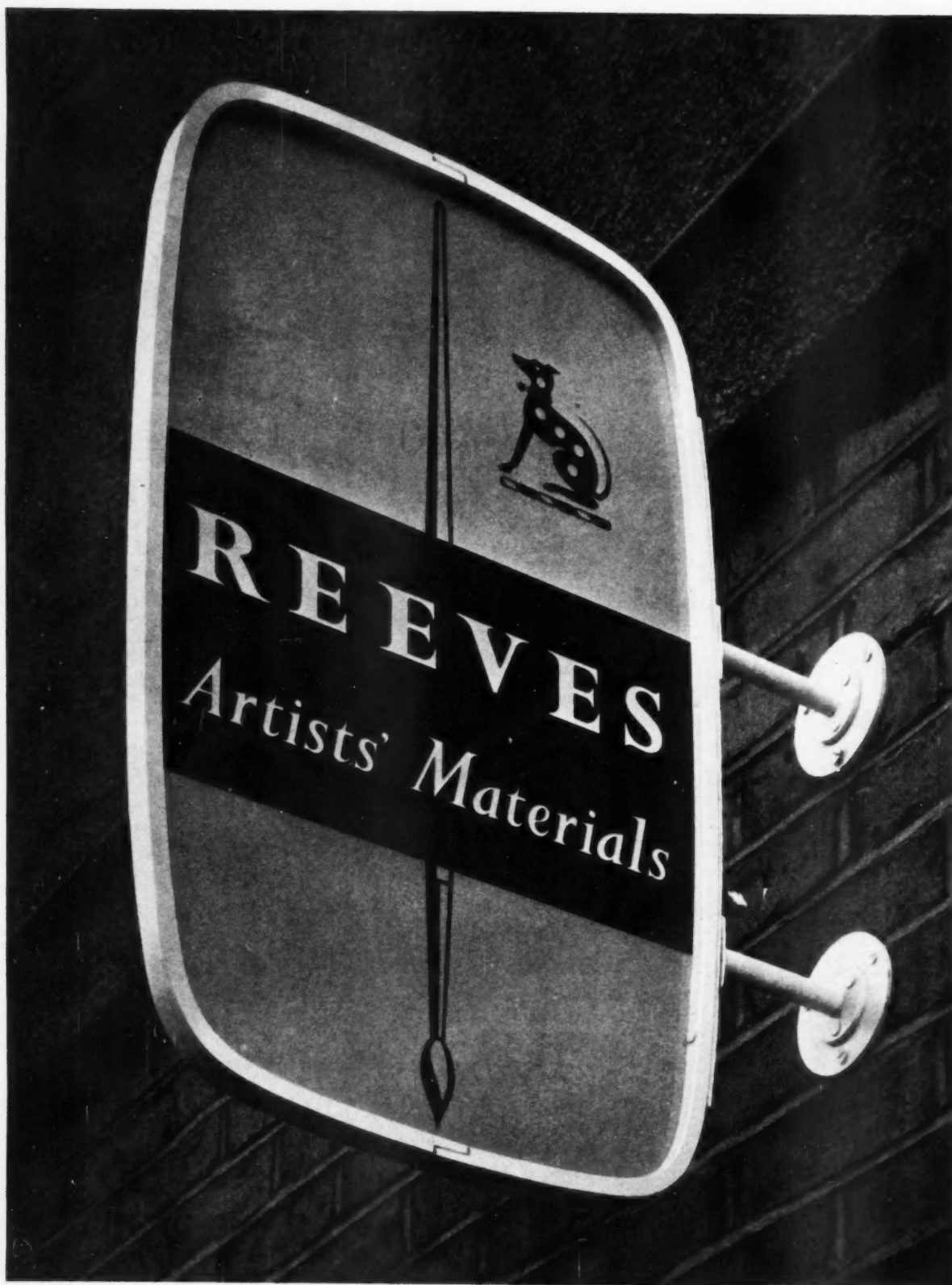
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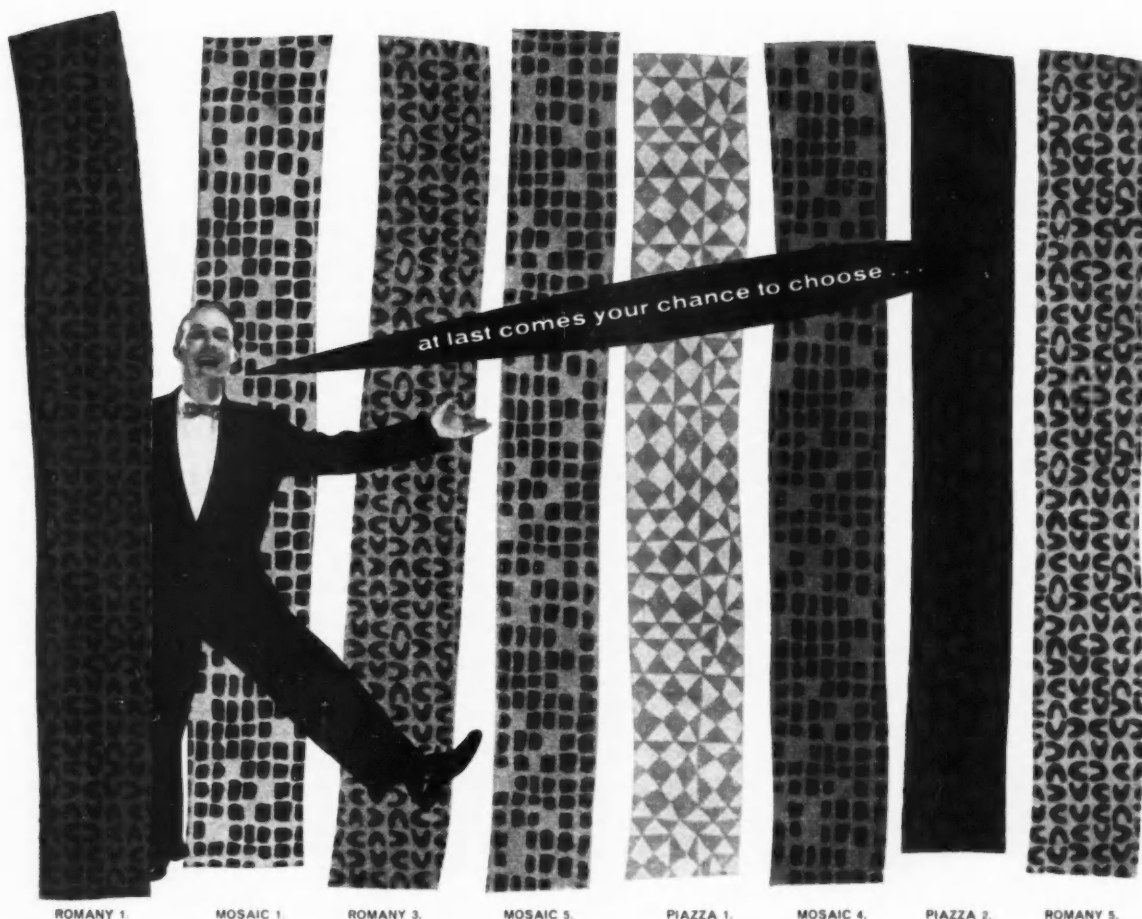
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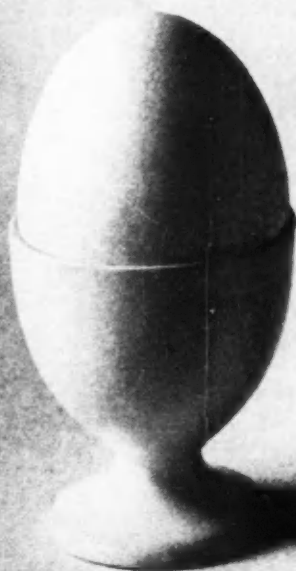
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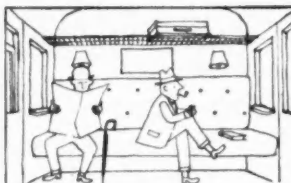
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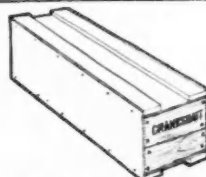
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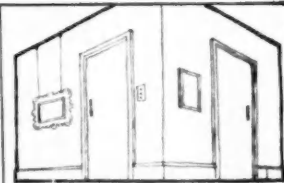
As well as being bent, blanked, and cut to almost any size, Bowater Board can be dressed up in all sorts of attractive colours and textures. For reasonably long runs, it can be given special hardening, softening, or other treatments to make it suitable for jobs like the ones shown here...



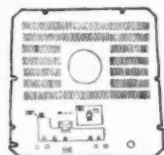
For British Railways carriage partitions, Bowater Board was specially treated for easier lamination of Melamine.



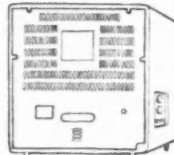
A specially softened board was produced for these crankshaft boxes, so that automatic nailing machines could be used.



By contrast, a specially stiffened Bowater Board was used for making these flush doors.



Another regular use—TV backs. Bowater Board is dark-stained so that overprinted circuit diagrams are clearly legible.



TV backs again: this time, Bowater Board was fine-meshed on the reverse side so it could take screening foil.



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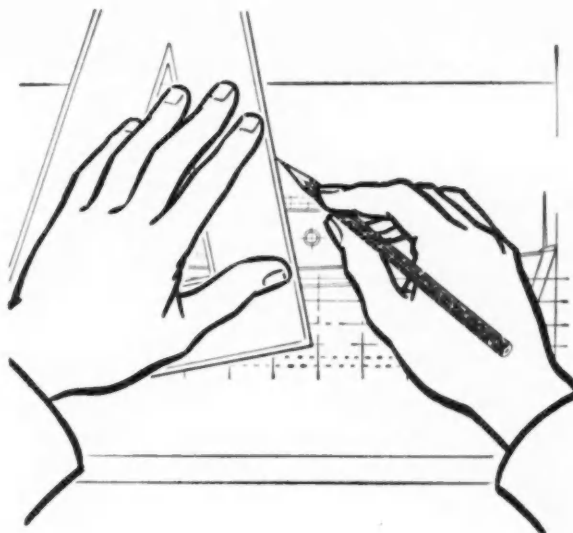


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or nearly but bang on the dot every
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and flow smoothly throughout a long line —
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for inclusion in
DESIGN INDEX

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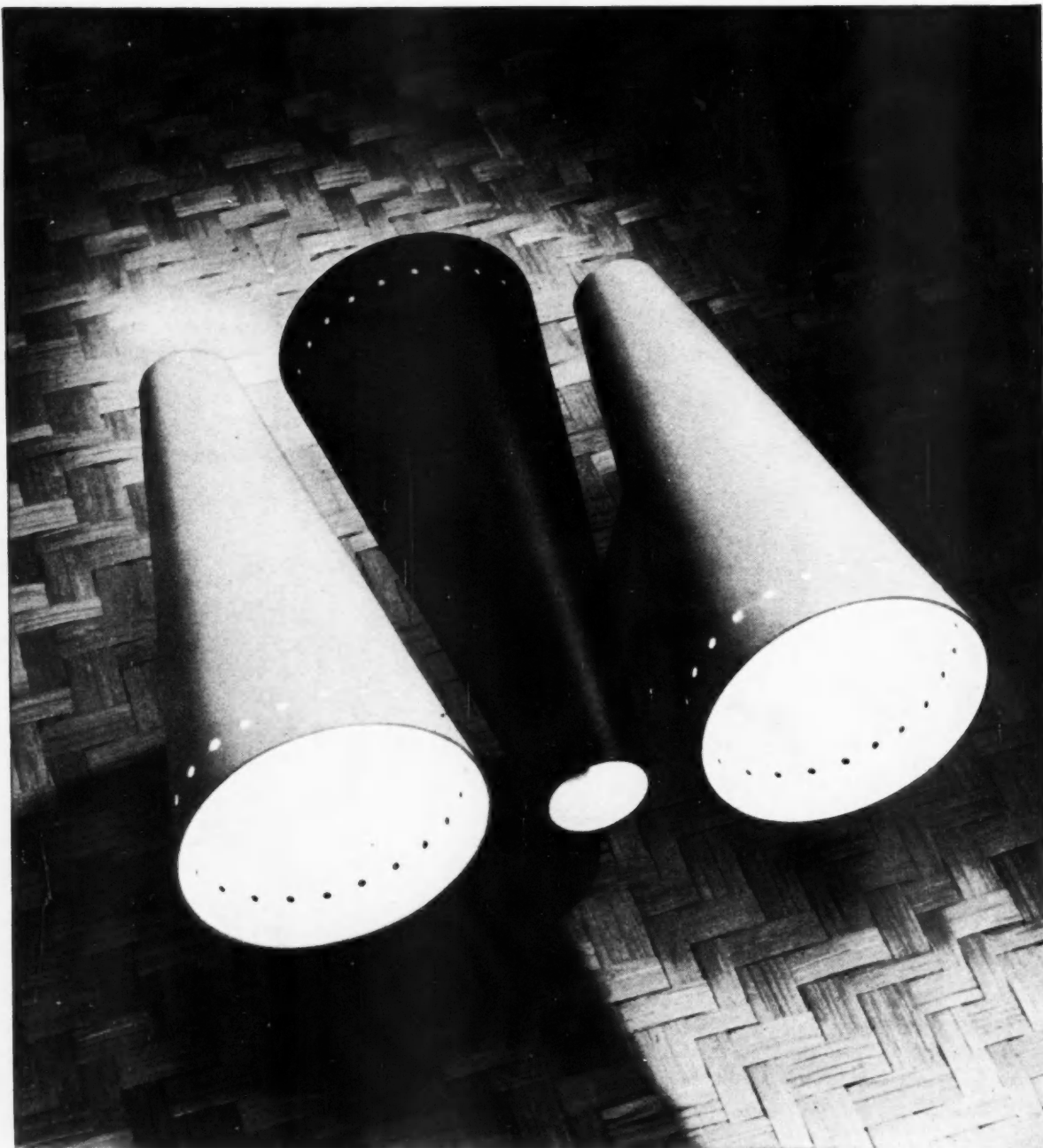
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4806



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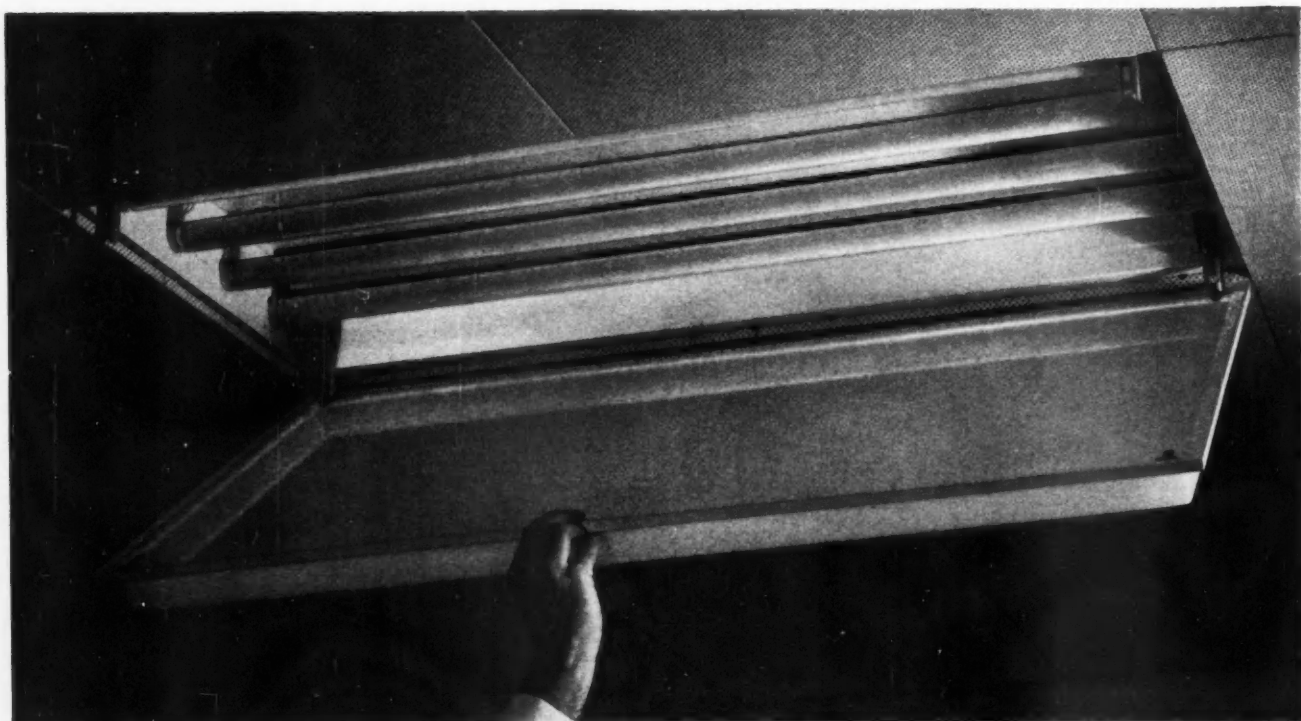
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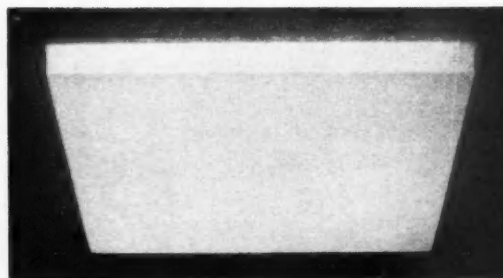
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| USA | <i>Lazette Van Houten</i> |

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26 Filling stations

While planning control in this country has prevented some of the worst examples of filling station design and siting that can be found on the Continent, the general level leaves much to be desired. The article criticises filling station owners and the petrol companies for erecting their standard 'little boxes' indiscriminately in town and country without due regard for the demands of the environment. A plea for greater flexibility is put forward and it is suggested that more extensive market research might show that alternative approaches to the design of filling stations may be desirable

36 Medical equipment

The design of medical equipment is often dominated by austere forms which may be a reason for fear of hospital treatment. The article suggests that a more human approach, already evident in a few designs to help the doctor or dentist, could also be adopted in designs to suit the patient

39 Centenary fabrics and wallpapers *Patience Gray*

This year the centenary of Arthur Sanderson & Sons Ltd is being celebrated with a remarkable collection of some 4,000 new fabric and wallpaper designs that have been assembled from many parts of the world. The author describes the development of the firm's business and discusses the background to the company's present policy, which can be seen both in the emphasis on modern design in the centenary collection and in the impressive new Berners Street showrooms

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USA: Design and people I

The first of two articles showing the approach of an American consultant designer to human engineering. The concluding article will be published in July

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The addresses of British manufacturers in this issue are on page 73

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Design international

The department store has always been in a key position to influence the rate at which design standards in this country improve; and those which have kept their merchandise policy and their staff training in line with current developments have built up profitable departments for goods of modern design. The public, convinced of the logic of having some of its possessions designed for the needs of its own day, has been quick to respond. But one of the problems has always been the old shibboleth that good design is expensive, although there is no reason why it should be, since the difference in the cost of designing well or ill is not very great. A few trades, notably the garment and the plastics industries have proved the point, sometimes with the backing of a group of stores offering wide distribution.

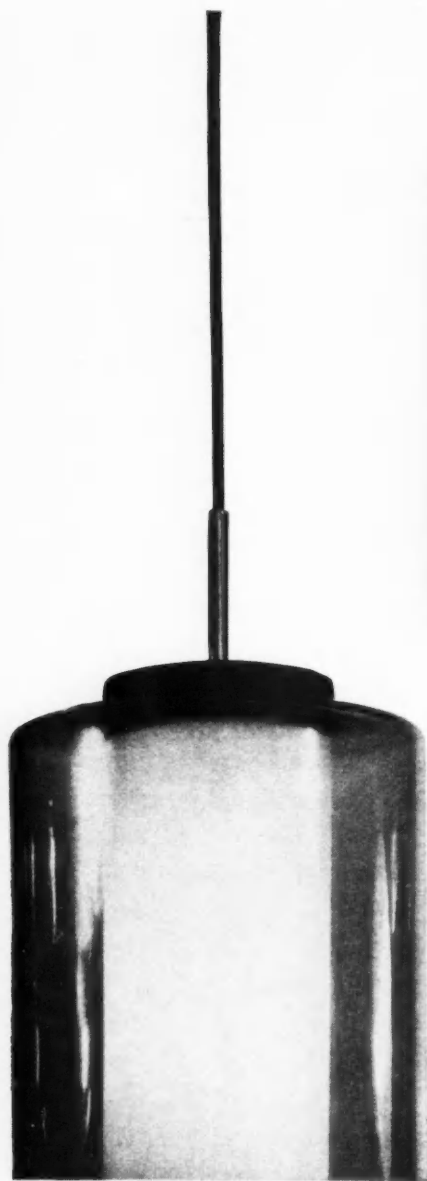
In this way good design comes down into the market place. That it can do so without sacrificing quality has been shown by stores in many parts of the world. The most recent and perhaps the most interesting instance is the co-operation between the Brussels department store Au Bon Marché, and the International Council of Societies of Industrial Designers of which the CoID is an associate. Le Signe d'Or Industriel, the Belgian member of ICSID, organised with Au Bon Marché, the originator of the proposal, an exhibition of some 300 – 400 products from 14 countries which were shown in the store during February. A design organisation which is a member of, or recommended by, ICSID in each country selected about 40 products from which were chosen approximately 20 on three counts: the visual and technical merits of the design, its saleability, and its availability, since most of the goods can be bought by the Belgian public.

Similar initiative was taken by the Swiss Department store Jelmoni, which recently organised extensive displays of British goods. For a section of the exhibition Jelmoni asked the CoID to select, with the store's display designer, a collection of modern goods from The Design Centre and to provide a small display which emphasised the essentially British character of the designs. The goods themselves were taken into stock so that they would be available to the store's customers.

These two events are both enterprising and realistic in that the arrangements allow the achievement of high standards, while accepting that industrially produced goods of this kind must be suitable for wide distribution. They follow a pattern already familiar to retailers in the United Kingdom whose buyers have co-operated with the CoID in the selection of goods for special displays in shops. It is this sort of joint enterprise which will put British design on the map and gradually bring good modern merchandise within the reach of everyone.

J.N.W.

atlas 'finlandia'



The superb, bold simplicity of modern Scandinavian glass can be seen in this range of Atlas fittings based on an original design by TAPIO WIRKKALA. It achieves a remarkable combination of colour effect, elegance and functional efficiency.

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DTV

Pointers

Encompassed

Readers will have seen the announcement last month (page 65) of the award to the CoID of the Grand Prix La Rinascenti *Compasso d'Oro*. In the few years since its inception, this annual Italian award, and its related awards to outstanding products and personalities in the design world, have been distinguished by wise and discerning judgments which have raised the sights for design standards throughout the world. It is because of this that the Council feels deeply honoured that it should have been chosen for this year's award – previously given to the Museum of Modern Art, New York, in 1956 and last year to Den Permanente, the Danish arts and crafts exhibition in Copenhagen.

One of the most interesting aspects of the *Compasso d'Oro* awards (symbolising the golden compasses of good proportion) is that they should be sponsored by a purely commercial undertaking, La Rinascenti, the largest department store group in Italy. This is a remarkable example of design leadership stemming direct from industry and commerce and deserves a wider following.

Eye-opener for engineers

The link, or rather the lack of it, between art school trained designers and technical college trained engineers has been a thorn in the side of educationists for a number of years. Indeed there are many who doubt the ability of art schools to do more than scratch the surface of some of the more fundamental problems that occur in engineering design; while there is little indication that the technical colleges are aware of, or are in any way interested in, those factors in engineering which we have learned to bracket under the phrase 'industrial design'. Now an important step towards an understanding between the two has been made in a successful course in design appreciation, devised by the CoID for 10 junior employees from Hoover Ltd.

None of the students at the course, which was described last month (page 69), had received any previous training in art or design and, at the beginning, some were clearly suspicious of what they considered to be rather a long-haired activity. But throughout the course their interest was stimulated, not only by making visits to factories and listening to the lectures, but by working on 'design analysis' projects, by talking with designers, art school students and lecturers, and, above all, by discussion among themselves. The great advantage of the course being residential was, in fact, this opportunity for uninterrupted discussion – which often went on far into the night. By

the end of the course the attitude of the students had changed completely and everyone agreed that it had been an 'eye-opener' on a new world. One student hit the nail firmly on the head when he said: "I think it would be wise if this type of course were included in the liberal studies for the Diploma of Technology".

This certainly needs serious study by the education authorities. But the authorities are more likely to act if the demand comes direct from industry itself; and Hoover's enthusiasm for the results achieved on this occasion has encouraged the CoID to consider further courses among groups from several firms. Already enquiries for similar facilities have been received from other firms.

Gap in British industry

Ergonomics has been a recurring subject in this magazine for the past six years. And although it has been demonstrated often enough that substantial improvements to a wide variety of products could be made if the specialised skills of the ergonomist were utilised at the design stage, many designers and manufacturers must have wondered where this specialised advice could be obtained. The answer appears to be "from the U.S.A.", at least in one case. The Atomic Energy Division of The General Electric Co Ltd has recently announced that a three-man team from the American consultant firm of Dunlap and Associates Inc. will be advising on the human engineering problems relating to the control room of a nuclear power station.

It is, of course, extremely encouraging that a large British firm should be giving this lead by recognising the vital importance of ergonomics in such a big project. But why not choose a British team? Unfortunately, the few British experts who exist are either attached to research establishments or, in rare cases, are employed full time in industry. There is, in fact, no office in this country to which industry can turn for advice on ergonomics. The appointment of the American team points to a gap in our industrial armour which urgently needs filling.

Escape from non-U

When Charles Eames casually mentioned on one of his recent visits that he thought the London taxi a really splendid example of good design, he could hardly have thought (and nor did we) that his prophetic words would strike home to cab operators in the very heart of America's motor industry. But the challenge seems to have been accepted, and Detroit cab operators, as well as those in several other cities, have discovered that the converted saloons normally used are cumbersome and expensive compared with British designs, and have ordered over 50 of the latest BMC *Scotland Yard* type.

Apparently one of the greatest attractions of these British cabs is their small turning circle which the Americans consider will be a real advantage in their congested traffic conditions. In effect they appear to have discovered the U-turn at precisely the moment it has been banned in London. While this will give a new lease of life to that dextrous (but alarming) British manoeuvre, one wonders how long it will be before the eagle-eyed American traffic engineers find out that something very nasty is happening to their traffic flow.

Already Britain has more cars per mile of road than any other country, and every day the number is increasing. To maintain a continuous supply of fuel more and more petrol filling stations are springing up singly and in clusters, in both town and country. But there seems to be little correlation between the design of the filling stations and their surroundings. The same 'little boxes' are used too often and none provides an ideal solution for universal siting. There is too much indiscriminate advertising on the station forecourts, which are becoming cluttered with small signs, and there is an over-use of the oil companies' house styles. How can designs be improved, and, perhaps most important of all, how can the stations best serve the needs of motorists? These and other questions are discussed in the following article contributed by a special correspondent.

FILLING STATIONS



British filling station design is too inflexible. The resulting product is almost inevitably a small rectangular box, which in itself may be well or badly designed, placed in an area of tarmac or concrete. Because of this inflexibility, the average petrol filling station is not making a vital contribution to the environment; and I have a shrewd idea that if some of the stations were designed to do so, their owners would sell more petrol.

It must be pointed out right away that whatever is to happen to filling stations is not going to be immediately disastrous for the British landscape or townscape. The situation here is not (and I hope never will be) like that of the USA or Italy where, with apparently no control, petrol stations can be built almost anywhere and in any number. The uneasy dialectic between planning authorities and station owners, who may be single individuals, groups or combines, or oil companies, seems to ensure that nothing extremely bad (nor very good) is being built in the wrong place.

But this does not provide an excuse for the fact that filling stations act only as a *negative* lump on the landscape instead of being a *positive* enrichment of it – which, with some careful thought they could be.

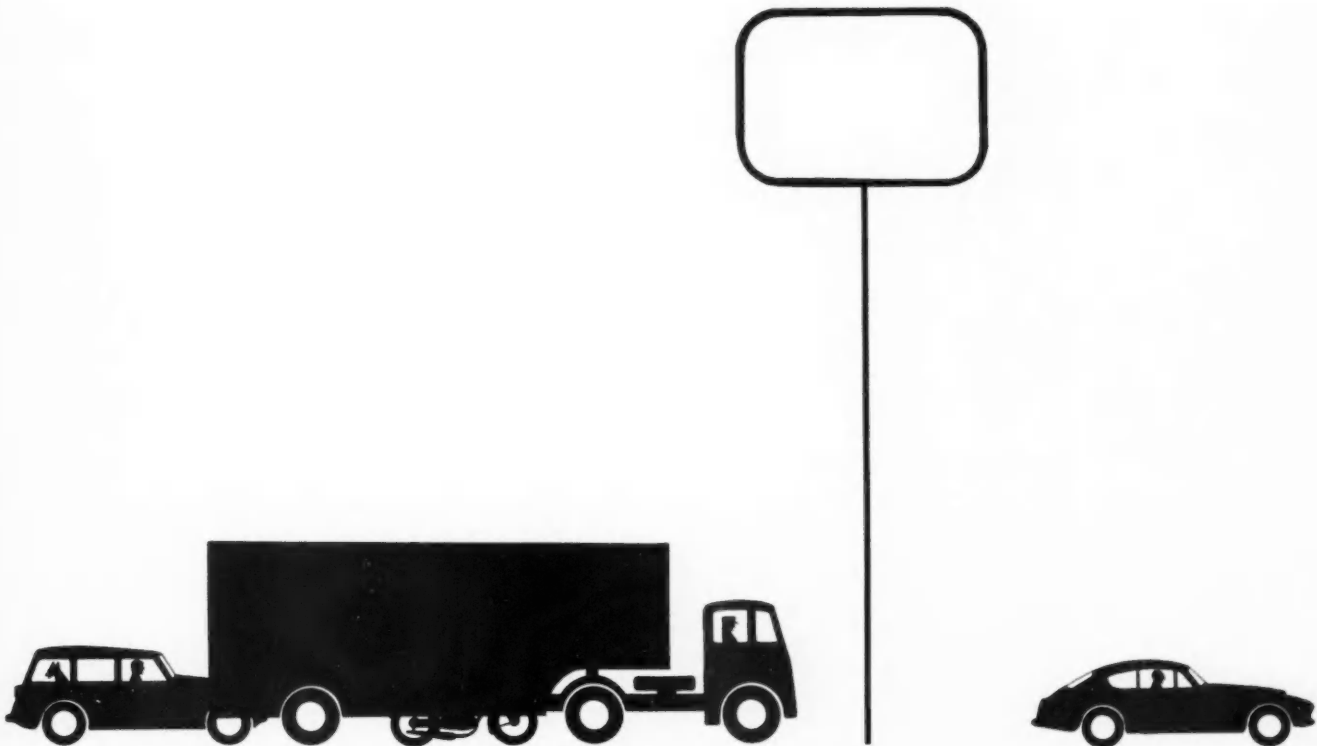
Some typical examples of current units are illustrated in this article. They have not been chosen to show the best or the worst from the standard designs, but are representative of what is to be seen on the majority of roads in

this country. Each of the examples carries the house colours of one of the oil companies in this country, and although the companies may not *own* these particular stations they wield a strong hand in unit design and encourage the use of company colours, symbols or brand images.

What I want to do is to discuss the problem from two different points of view, firstly as a motorist and then as a design critic, town and country lover or what you will. Finally I shall describe how these problems are being tackled by the oil companies; for the great majority of filling stations in Britain sell single brands of petrol, with the tenant, owner or dealer under a solus contract to an oil company. He is encouraged to paint his station and pumps in the house style of the company, and, of course, use the current vogue in forecourt signs.

A motorist's opinion

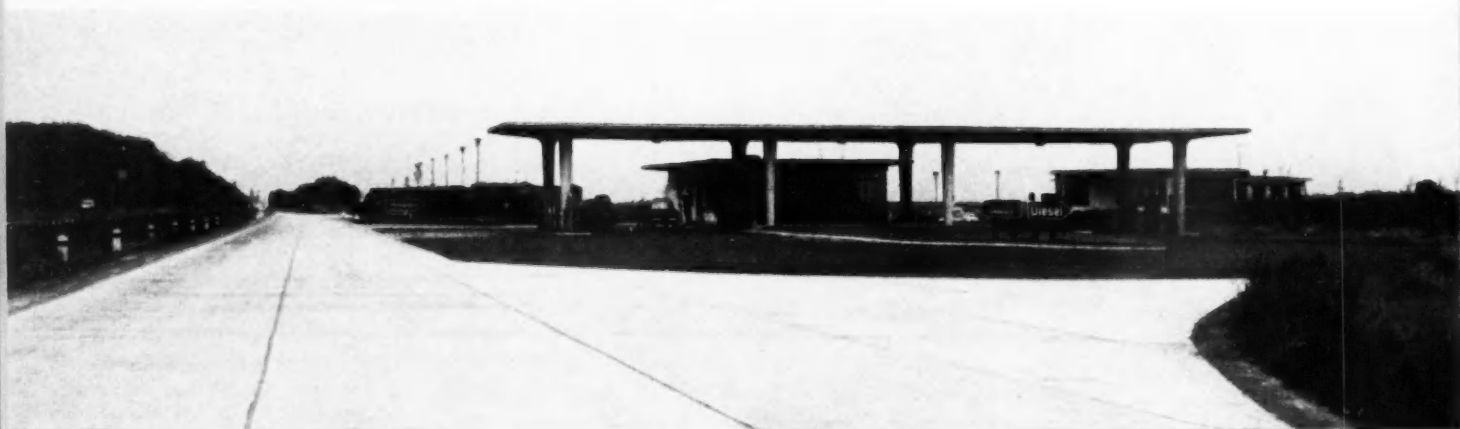
Starting with the subjective views of a motorist: I do about 20,000 miles of long distance motoring a year, and the one thing that draws me into a petrol station is a brand indication sign, large and easily seen at a distance. Anything I see too late might as well not be there because I am not prepared to make a sudden lunge off the highway any more than I would be prepared to change traffic lanes suddenly while driving in Piccadilly. There is an alternative, although I have never yet seen it achieved in Britain, which is the petrol station that flows so well with



Filling stations

the landscape that it seems to draw you in, like a public house with a strategically placed open door. The German filling station, **1**, exemplifies this type of design.

Once I have visited a petrol station, what would cause me to return if I were on the same stretch of road again would be, first, convenience and service, and a good way second, neatness and crispness in the fittings. Convenience and service mean physical things like WC's, and in any sort of rough weather (which is perhaps 40 per cent of the time for an all-year motorist) a canopy. I am also about twice as likely to return if I know I can get a cup of tea and a meal, or attention to my car.



1 German filling station on an autobahn.

But the biggest component must surely be the temperament of the attendant, and this cannot be provided along with a list of maxims about cleaning windcreens, etc, or by an enforced cheerfulness-by-numbers. It is much more likely to arise if the attendant is content; and this will largely depend on whether he has some real interest in the business; which may mean building a service station not just a filling station. To sum up, what I want as a *motorist* is: a clear advance warning; some comprehensive relation of station and surroundings with a visual invitation to enter; and as wide a range of services as possible to meet the internal needs of myself and my car.

These are purely personal views, but many of them might be shared by other drivers; and they may represent something very different from the image that most of the filling station owners have of their customers' needs. But is anyone taking the trouble to find out? If someone interviewed say, 1,000 lorry drivers, 1,000 commercial drivers and 1,000 self-drive executives to discover what each looked for in a filling station, then there would be less need to make any rash guesses.

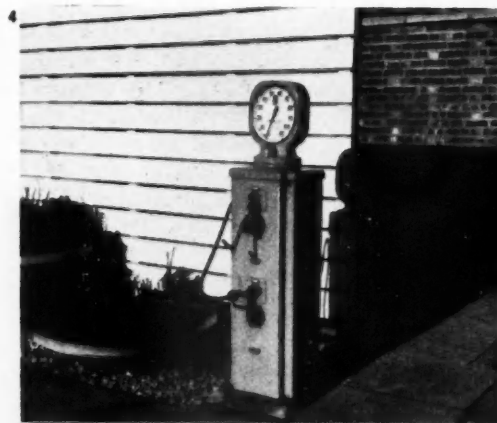
Harmony with the landscape

To assume the second role, what do I, as a critic, want to see in a filling station? I would like:

(a) Basic unity between station and surroundings. This has nothing to do with whether a station stands out in the view or not; it is simply things done country style in the country and town style in the town, **3**. Even more to the point, things done main-road style on a main road and village shop style on a minor road, **2**.

(b) Relationship – it need not be conformity – between station and surroundings. Whatever the station does

4, 5, and 6 Successful relation of parts within one station.



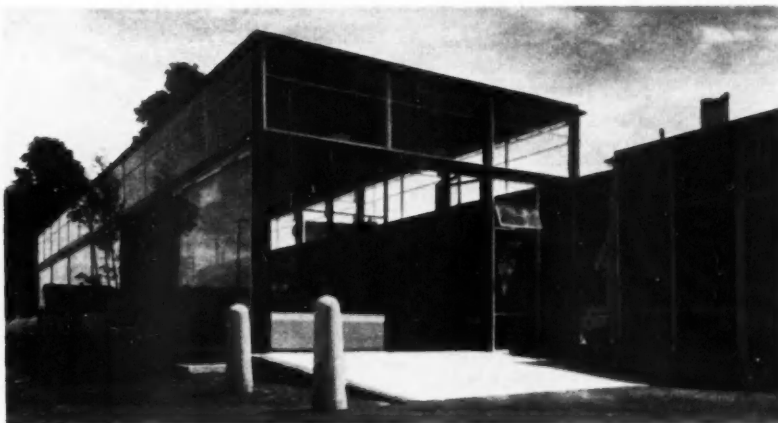
should be a positive act, whether of identification (harmony) or differentiation (counterpoint). It should not merely sit there, though 80 per cent of today's filling stations do just that and nothing more. This must mean flexibility, and it is much easier to achieve with a *service* station unit than just a *filling* station, because the forms are larger and more varied. It need not preclude standard units; it depends on the way in which the standard units are designed and arranged. If, in a horizontal landscape, any kind of tying-in is needed, horizontal lines will be needed in the station also, and the easiest way of doing this is by using a canopy.



2 Village shop style on a minor road.

(c) Relationship inside the station; the parts ought to look as though they belonged together and as though they belonged to automobiles, not drawing rooms. At the moment they are a clutter of unrelated objects. Although some station furniture may be well designed, it will add little to the overall effect if the design concept is not integrated. If the different objects cannot be integrated or made significant, then why not another kind of standard unit – clip on frames for signs and small objects? This is, in fact, already realised in the station at Headington, 4, 5, and 6.

(d) Deep rich colours – so that the petrol station is in



3 Town style in a town.

6



7 Amenity sign in which all the information is presented in a neat and easily readable manner.

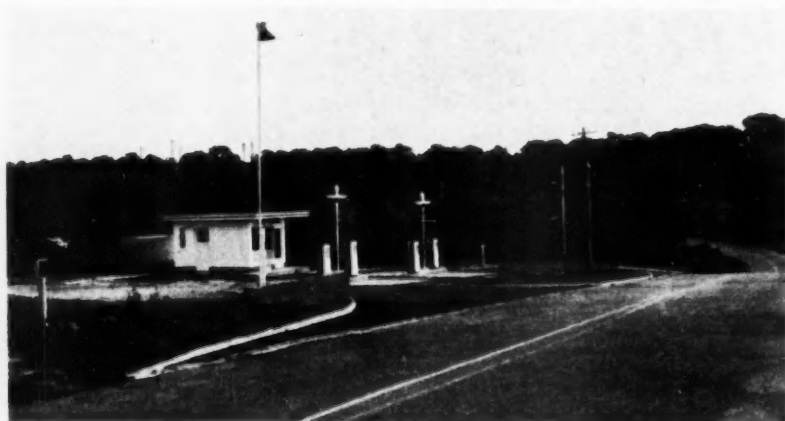


Copyright Petrolina (Gl Britain) Ltd

Filling stations

harmony with its environment. What the colours are, as long as they are sparingly applied, is far less important than whether the colour used is full and rich and has body and depth. If the new, light colours of one oil company have been chosen on psychological grounds – they are said to be – I can only imagine that the company's advisers confused internal and external colours and effects. Similarly, another oil company's recent change from a full, rich, grass green to a thinner, acid, benedictine colour is disastrous, even though the alteration in shade is fairly small.

(c) No nonsense in siting. I have put this last because it



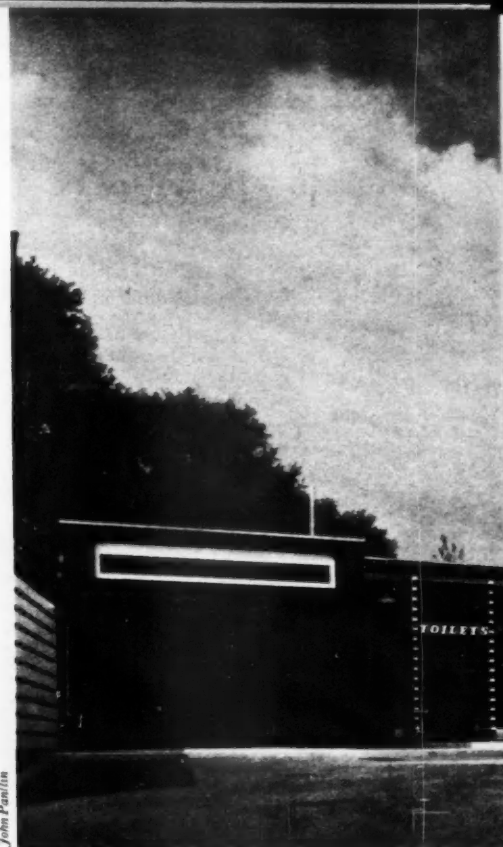
8 An example of bad siting; but fortunately rare in Britain.

very rarely happens in Britain; the planning system can and does prevent it.

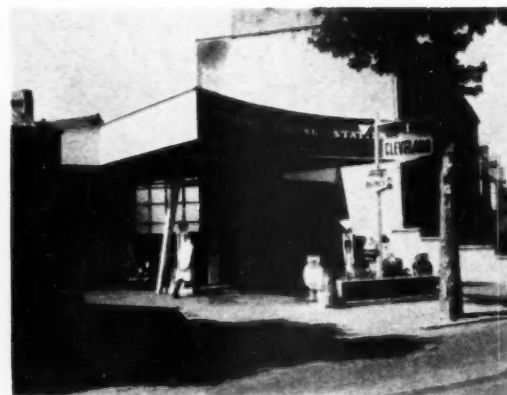
Flexibility in design

What transpires from this? First of all, flexibility in design is an essential; a house style must be homogeneous with the buildings not swamp them. A box-in-asphalt is only one kind of answer, and its true *milieu* is one which it has helped to create – the edge of town jungle, the get-on-or-get-out place, where everything is sacrificed to flow, and where the only hope of making a worthwhile landscape comes out of recognising this, not concealing it. The range of possible solutions extends in two dimensions: the scale of services needed and the scale of the surroundings in which the services have to be performed. The first dimension means at one extreme the village pump and the open, exposed petrol pumps of, say, the Milan boulevards, and at the other, a small factory staffed by people who know their job, with a café or possibly a motel attached. The second dimension means that in some places there needs to be maximum concealment and fitting-in (pumps behind shopfronts in old towns, horizontal lines and careful rural planting in the country), whereas in others there can, and ought to be maximum advertisement and exploitation of the crisp bright objects (the Old Kent Road, a suburban roundabout – the example at Greenford, 9, does very well at this). To insist on one standard solution to all these things is as ridiculous as specifying one kind of wine (a mixture of red and white, naturally) to drink at all meals.

Then there is the definite need to treat the brand indication sign and the station as two completely separate things, and to recognise that the former is the only really essential indication that the motorist needs. The station



9 Lively exploitation of a suburban roundabout site.



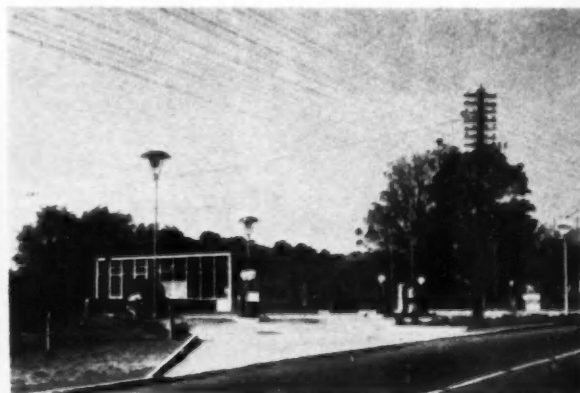
10 A corner site station well related to its surroundings.



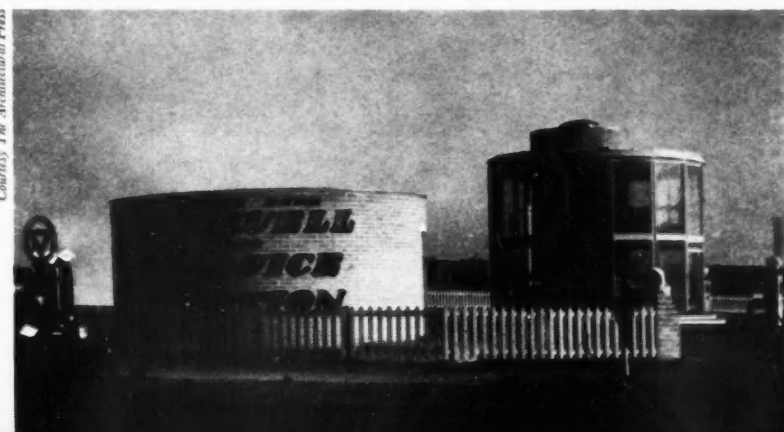
11 A service station neatly combined with existing sheds.



12 Misuse of the glass palace in the country.



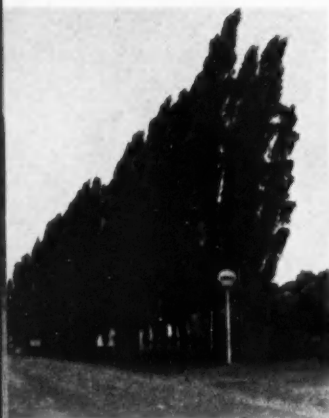
Courtesy The Architectural Press



13 One of the handful of really original layouts in Britain.

Filling stations

itself can be all but invisible, if the surroundings make this necessary. A brand sign, being a single object or point of colour can be fitted into the landscape more easily than a complete station. Its height and size could be varied according to the scale of the surroundings and the distance at which the sign would have to be read (ie, large signs on a trunk road, little signs on a winding country road). Nor need the signs be at the garage: what I am thinking of is one advance sign in each direction, placed so that the petrol companies, the county surveyor and the countryside protection society are all satisfied. (When backed by trees or a wall, for example many of the signs actually improve



14 The sign is too small for the scale of the surroundings.



15 Here the sign is too large in this country lane.



16 In the chaotic street the sign is too insignificant to compete.

the view.) With the advance sign established, the motorist is on the lookout, hence the indications at the actual entrance can be made much less conspicuous.

The third and final consideration, related to the two before, is the proper use of a house style. To try to make the whole filling station speak with standard or company colours is surely a waste of paint. The eye is quite a sensitive observant thing which does not need to be bludgeoned: it will take in the company colours in small doses – on a pump, a forecourt sign, a door panel – the brain recording them as a brand image of its own accord. (Again, I think this might be proved by another bit of intelligently conducted research among drivers.)

The oil companies

Now let us have a detailed look at the way individual oil companies tackle the problem. Interviews were held with each of the seven major oil companies in this country: Shell-Mex and BP Ltd; National Benzole Co Ltd; Mobil Oil Co Ltd; Petrofina (Gt Britain) Ltd; Esso Petroleum



The brand identification signs, ABOVE, and the latest symbols and house colours, OPPOSITE PAGE, of the British oil companies.



Co Ltd; Cleveland Petroleum Co Ltd; and Regent Oil Co Ltd. Of all the colour schemes Shell leads easily; its red and yellow, picked up at long distance, must have helped in selling a lot of petrol, and the colours rarely interrupt the landscape (as coloured farm tractors seldom do either). Sadly, the Shell yellow has been lightened, apparently to improve legibility. I cannot understand the reason for this. Everybody knows the Shell sign by its colour and shape, not by the fact that it says 'Shell'. It is there as an image, and its effect is psychological. Mobil and the old BP colours are next in order of merit. Mobil has the routine red and blue, at present with strong shades of each. The other companies trail along behind, much of a muchness. Whatever the colours, as mentioned before, they must be app-

lied in small amounts at a few strategic points. (The new National Benzole colour scheme, plastered over the buildings themselves, makes this point only too clearly.) I am certain that over-painting defeats its own object, for the eye becomes satiated. What can be remembered in the best of Shell's scheme is not a whole station painted yellow and red like a bunch of chrysanthemums but isolated areas of colour; a signature tune, not a symphony.

Standard designs

How many sites does each oil company control? None of them will specifically declare the proportion of sites it controls but collectively it seems to be the greater majority of the 36,000 or so filling stations in Britain. Of this number

Filling stations

the oil companies themselves say they *own* only a small proportion, for as each declared: "We are only interested in selling petrol, not holding real estate."

Company sites are usually company designed, and for sites which are under solus contracts the companies can, and do offer advice on design and layout. In some cases

financial aid is available to dealers who wish to expand or rebuild, and the companies may undertake to negotiate purchase of land and approach the planning authority for permission to build.

The following illustrations show typical standard units of each of the British oil companies.

17



Shell-Mex and BP Ltd: This is a joint marketing company in the UK for the Shell and BP groups of oil companies. It has an architectural section in the head office engineering department. In some cases outside architects are employed for individual stations, working in accordance with the group's standards. The colour schemes, painting and display signs conform to the international colour schemes adopted by Shell and BP individually.

Originally an all glass standard unit, based on the Hills system, was used, **3**. This was good in towns but too inflexible in the country. After some experiments, the group's architects produced the current unit, **17**. The result is possibly the best of all the oil companies' standard types.

18



National Benzole Co Ltd: The company is a subsidiary of the Shell-Mex and BP Ltd but with only loose associations. It has a small design section which is in the advertising department. For the design of filling stations, outside architects work with the company on standard lines. Until recently its stations have always been straightforward and quite refreshing, **18** being a typical example. However, the colour scheme has recently been lightened and a new, slick brand sign and pole have appeared on station forecourts (see page 32). The Americanism which has been attempted is not entirely successful; something better could be done by using frank, solid and obstreperous British detailing.

19



Esso Petroleum Co Ltd: As is too often the case with oil companies, Esso's architectural section is in the engineering division. The unhappy result which conforms largely with the parent company's standard units in the USA, is more stereotyped and less inspired than the majority of the standard designs.

20



Cleveland Petroleum Co Ltd: Cleveland is a subsidiary company of Esso's but with an association like that of National Benzole with the Shell-Mex and BP group. It has its own ideas on design and like Petrofina, it tries to treat town and country sites differently. This shows in the variety of designs; however the designs themselves are undistinguished whether standard units, **20**, or when modified to suit the planning authority. Yet the basic idea of flexibility is present.

21



Regent Oil Co Ltd: The stations give an impression of nothing in particular. The company's architectural and engineering group has produced virtually a standard unit which is assembled differently according to site. Where possible there is a uniformity of materials with the end product a standard white box. The unit is not much improved when local materials are used.

22

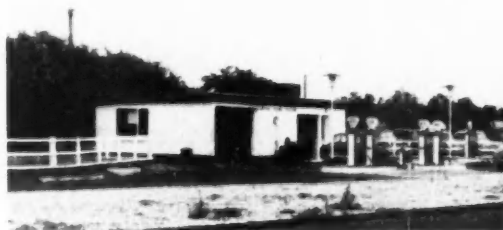


23



Mobil Oil Co Ltd: Service stations are preferred by this company, not just filling stations. The whole attitude towards design differs from most other groups. It has a large and well qualified architects' department which appreciates the difficulties of design, seems fully aware of the attendant's problems and the motorist's needs, and tries hard to correlate the three. Mobil stations have greater variety than any of the others but the standard unit is limp and lacks character, 22; however experimental projects are always in hand, 23.

24



Petrofina (Gt Britain) Ltd: Its parent company is in Belgium, but Petrofina (Gt Britain) has freedom in design except for the house colours and some international standards such as brand indication signs. It is prepared to treat urban and rural sites differently, and company architects often use post and rail fencing, local stone or trees to marry the site into the background. The company frequently employs outside architects to work to group standards. But the execution seems to fall short of the good ideas which the company has.

Conflict of ideas

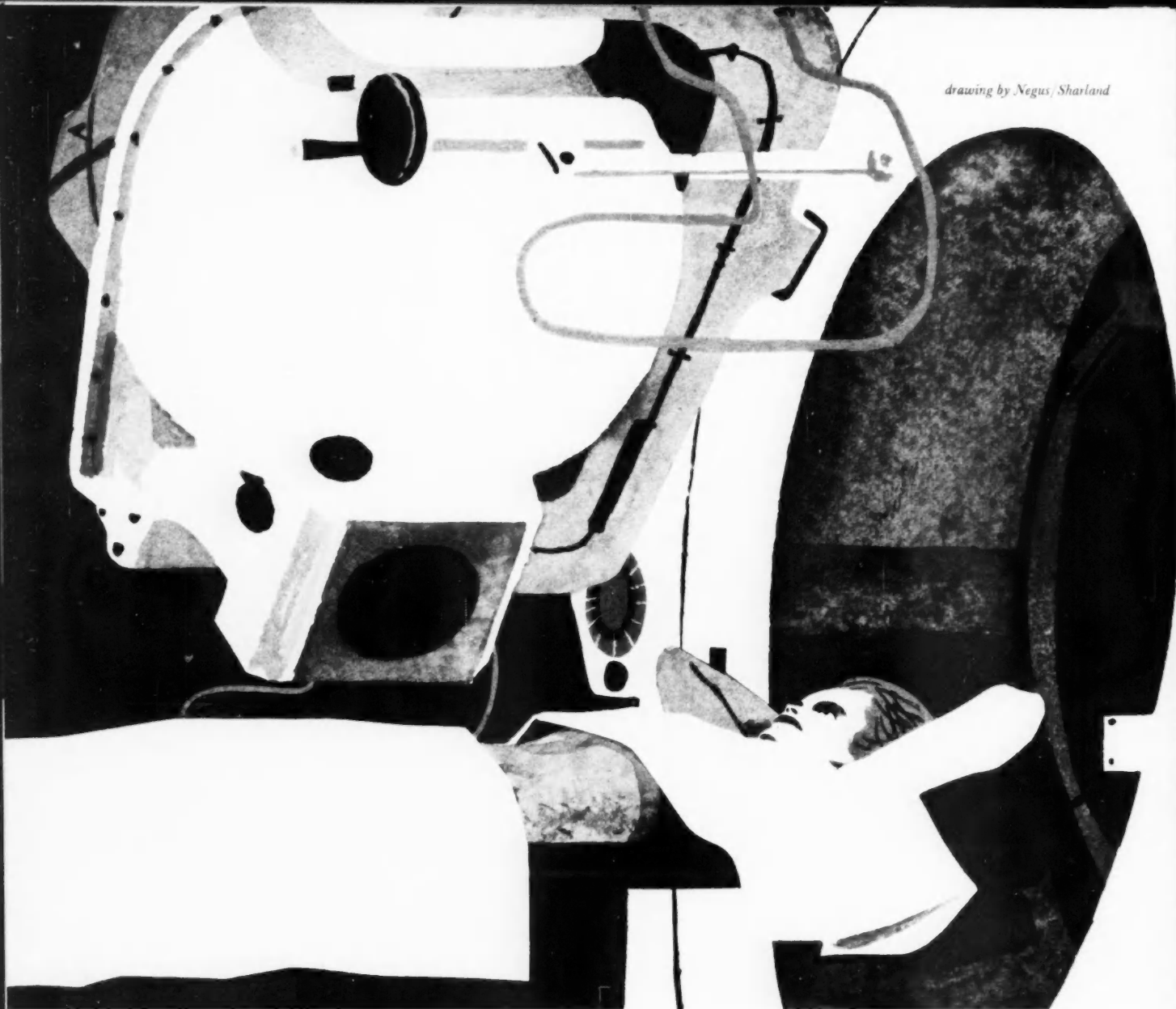
It would be wrong to suggest that the oil companies have given no thought to the points mentioned. Their general aim is to persuade the owners to provide simple, economic filling stations with a distinctive colour scheme (to create a brand image as it sells petrol), layout and accessories and service facilities where these are considered necessary. All provide lavatories if possible, and most say they are against indiscriminate advertising around the station. One company spoke of inspectors who make a periodical check to try to stop signs from sprouting anywhere on the station forecourt. But this is a difficult thing to control. Accessory manufacturers are said to tempt dealers with offers of advertising signs for every given number of their products ordered. And so another flag will be stuck up somewhere.

None of the companies, it seems, favours the use of canopies. They say they are too expensive – lorries and the like continually knock them down. Also, each company said planning authorities can be difficult to deal with when granting permission to use a forecourt sign. How much

evidence is there to support these arguments? Are the oil companies certain that sufficient investigations are being made into *all* the facts affecting marketing?

The biggest obstacle to any kind of progress is this apparent scarcity of any real knowledge of what sells petrol. The whole vast competitive industry is based on ideas which are rarely tested. At the risk of being corrected I would say that the petrol in the pumps is more or less the same, give or take a few additives. I would like to see some exhaustive market research among drivers in this country. Each oil company mentioned market research, but it is more frequently carried out in the USA or on the Continent and the results are applied to Britain through the companies' international standards.

The international Shell organisation seems to be one of the few groups to interest itself closely in this matter. Its visual manifestations division experiments on a medley of stations, though to a limited extent in Britain. Taken over six or seven countries, the results show the kind of flexibility that I would like to see applied everywhere.



Medical equipment

More human attitudes to design are required in meeting the needs of patients and doctors

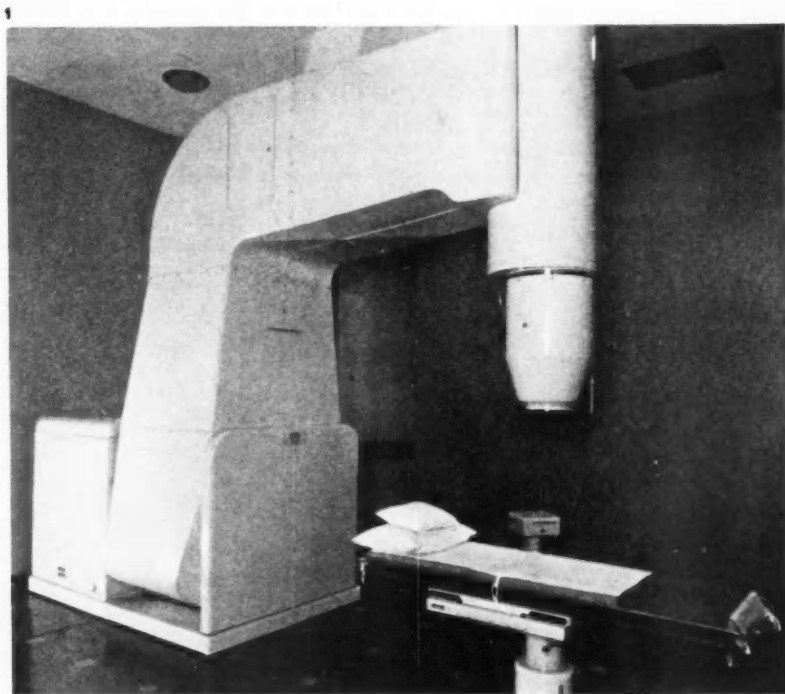
The design of medical equipment often seems to have been influenced by only two factors – the anatomical requirements of its users and the strictly cubic or circular forms of the Bauhaus. A commonly accepted impression is that the medical knowledge of those who specify and purchase hospital equipment automatically ensures that it is ergonomically well designed; and again, there is a similar feeling that hospitals are well ahead of the rest of the world in adopting good modern design, for these are the places where the ascetic, clinical and sterile forms of the functionalist tradition are the obvious choice.

However, it may well be time to revise such opinions.

The following illustrations have been chosen to suggest that the preconceived ideas that exist on the design of medical equipment are by no means inevitable.

X-ray therapy units

It could be that the extremely modern and efficient appearance of equipment which the patient sees, **1**, is one of the causes of fear of hospitals and medical treatment. Would it be worthwhile to study the appearance of such things as X-ray therapy units in relation to the (possibly horrific) associations and attitudes of mind which they induce in patients during treatment; and particularly in

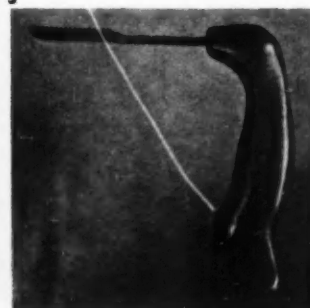


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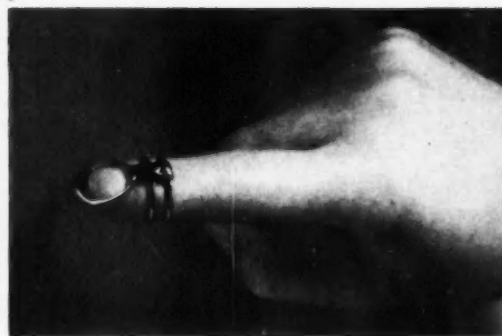


Photos 2, 3 and 4 by
courtesy of Hugh Johnston

3



4



relation to those who are reluctant to seek treatment?

Generally we may wonder whether the smooth shining surfaces, the bright chrome, and the antiseptic and anaesthetic smells with which this type of equipment is associated, are really necessary. Do shiny surfaces noticeably reduce the amount of infection? Or is there so much space for bacteria in the minute crevices between covers, and in the uncleanable interiors of even the shiniest equipment, that exterior treatment makes little difference? Is there, as Bernard Shaw suggested, a connection between the aesthetic impression of cleanliness and susceptibility to infection – even if dirt is present behind the scenes?

Surgical instruments

The retractor, **2**, and the nasal saw, **3**, are two examples of experimental designs which attempt to relate the tool shape with the requirements of the hand and the actions performed. In this field there is enormous scope for applying ergonomic and anthropometric studies to handle shapes, as has been done by Thomas Lamb in these examples. The designer's intention has been to give increased control to precise movements of the nasal saw, and to lessen fatigue when the retractor is held for a long time.

The fingernail scalpel, **4**, is used for delicate heart operations in which a high degree of tactile sensation is

Medical equipment

required. It was developed by Austin Robert Baer who is one of the very few industrial designers to have designed surgical instruments. Some other anatomically designed surgical instruments from Czechoslovakia were illustrated in DESIGN 134/57.

Most surgical instruments are designed by surgeons in collaboration with manufacturers. But although a surgeon has expert knowledge of the virtues and failings of existing instruments in practice, he is not trained in design and may not have an aptitude for the very different task of imagining an entirely new instrument and converting this image into usable hardware. Would it be worthwhile to give at least a few designers the ergonomic training that would enable them to fulfil this role?

Dental equipment

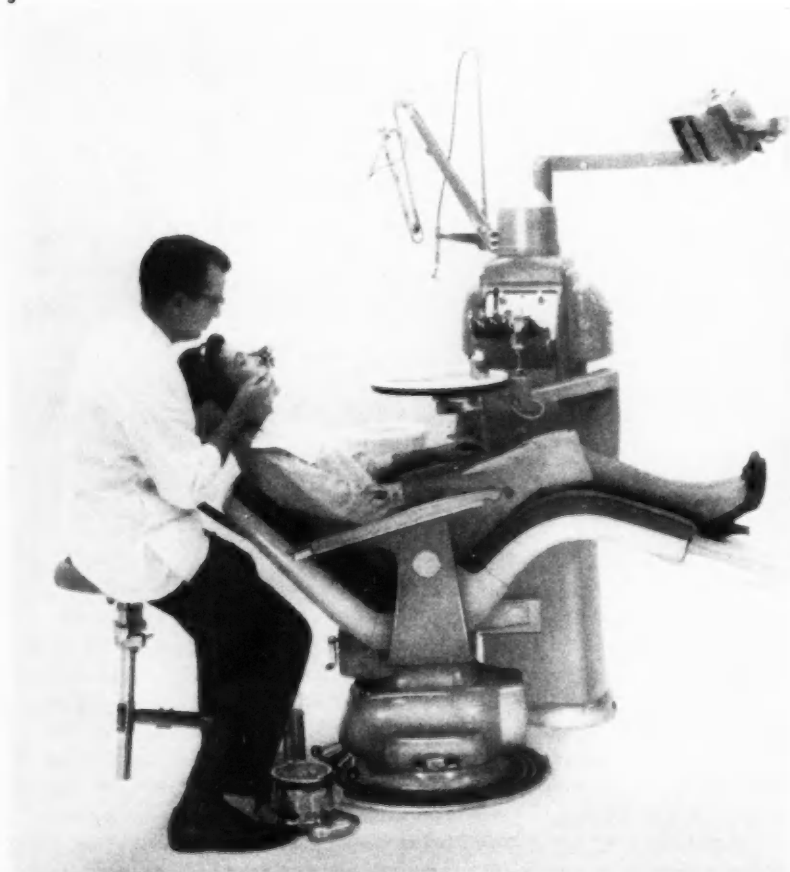
The American dental chair, 5, is one of the first results of ergonomic applications in this field. It is based on the ideas of Dr Sanford Golden, a Californian dentist, who has tried to resolve two problems: the tension and restlessness of patients and the fatigue of dentists who must work all day standing up. The new chair is low enough for the dentist to work seated without bending and stretching. The foot rest is removed so that the patient cannot

suddenly alter his position by bracing against it during drilling. Instead, the legs are supported all along their length on a curve to reduce tension. The chair has a fixed sitting posture and tips back as a whole to lower the patient's head. It is claimed that the chair can be sat in for up to 12 hours without discomfort, making it possible to hold extended dental appointments in which a whole course of dental treatment is done at one sitting. Muscle activity and respiratory metabolism for both dentist and patient have been measured with the new chair and with a conventional chair. 6 shows electromyographic electrodes being attached to the dentist's leg during the studies.

The dental light mounted on the pillar is smaller than any previously available. It focuses an intense beam of light in the patient's mouth but none in his eyes. Walter Dorwin Teague Associates designed both the chair and dental column for the Ritter Co Inc, USA.

Here, then, are two approaches to medical equipment design. Greater attention to human factors has already helped the doctor and the dentist, and, in the case of the dentist's chair, the physical comfort of the patient. What still remains is the need for a more human approach to the appearance of medical equipment to reduce the fear of treatment among patients.

5



6



Courtesy Industrial Design

To mark its centenary this year, Arthur Sanderson & Sons Ltd has launched a collection of some 4,000 – 5,000 designs in fabrics and wallpapers, and has opened a showroom and office building which is possibly the largest of its kind in the world. The background to this ambitious venture is described here, and some of the new designs included in the centenary collection are discussed. The new showrooms will be described in a subsequent issue.

CENTENARY

fabrics and wallpapers

PATIENCE GRAY

Sanderson's celebrates its centenary this year by opening in Berners Street what are probably the world's largest wallpaper and fabric showrooms. Built on the site of the firm's former premises by architects Slater & Uren, with interiors designed on a no-limit budget by Beverley Pick Associates in consultation with the executive architect, Geoffrey Holroyd, this enterprise represents a new departure in wallpaper history.

This century old family business was started by Arthur Sanderson, grandfather of the present chairman, and was confined at first to importing fine French hand printed papers. Arthur Sanderson's three sons extended its scope. The Berners Street premises were opened in 1865, and in 1879 a wallpaper factory was established in Chiswick.

Since Victorian days Sanderson's has been one of the leading wallpaper manufacturers, and in 1921 the firm broadened its activities to include furnishing fabrics. The firm developed in two directions – wholesale trading on a national scale plus import and export, and manufacturing. The Chiswick wallpaper plant was burned down in 1928, and the factory moved to Perivale, where 1,000 people are now employed. The manufacture of fabrics (as opposed to buying and selling them) began at Uxbridge in 1921, and is still a purely wholesale concern; fabrics seen at Berners Street have to be ordered through a retailer. The firm is well known for the reliability of its textiles and for hard wearing, fade resistant fabrics.

In 1899 the leading English wallpaper makers amalgamated into a new organisation, the Wall Paper Manufacturers Ltd, the headstone of what is now virtually a wallpaper empire. Sanderson's Chiswick factory formed part of this combine, but the merchant trading side in Berners Street remained independent until 1929. Ivan Sanderson, the present chairman, is a senior director of this gigantic concern.

WPM Ltd represents 70 per cent of the total British output, which amounts to about 115 million rolls a year. This vast national production shows a 15 million roll increase on pre-war figures, stable between the 1900 – 1939 doldrum period. Of this, six to seven per cent is exported, with Sanderson's responsible for about 20 per cent. These figures conceal the increase in the value of the trade. Post-war demand for quality has risen steeply, re-

sulting in a tremendous increase in turnover, and the most encouraging trend has been the improvement in the technique and design of mass produced papers.

It is important to appreciate the gulf that yawns between the minute output of 'fine' wallpapers, handblock printed or hand silk screened, and the 'bread and butter' machine prints. Hand prints are the high fashion element; the percentage produced annually is infinitesimal – about half of one per cent of the total output. A machine roller printed paper must sell tens of thousands of rolls to be a commercial proposition.

New standards

A newly awakened awareness of design after the miseries of the war period (and suspension of production) fired off an experimental attitude in one or two wallpaper manufacturers. New designs commissioned from outside designers played a large part in the subsequent conversion to 'contemporary' fashions. By tradition the wallpaper firms have always sought to cater for every taste. In this case they played a considerable part in creating a new trend. WPM Ltd was the first to pioneer this new approach by introducing modern designs in its machine ranges – the *Crown* collection. This firm's *Palladio* range (first produced in 1954) set a new standard for exclusive screen prints.

Sanderson's exploits the solid commercial idea of satisfying tastes at every level. In Berners Street it caters for dowagers and duchesses, for middle class, genteel and non-descript tastes, for the young and dashing. It sweeps suburbia into its orbit. It caters for architects and contract work. Through the wallpaper and paint retailers it reaches people all over the country.

Improving the level of design for Sanderson's is not a crusade. It is a definite reflection of current demand. Sanderson's does not hesitate to commission good designers, nor does it ignore the subtopian demand for wallpaper masquerading as white-washed brick, tongue-and-groove pine, and Cotswold stone, executed in finest photogravure. (One of the mysteries of our time is that one can be delighted by wallpapers simulating marble, Chinese grasspaper, silk, and various textures and weaves, when they are well done, but appalled by simulated brick, stone and wood. The reason probably lies in the fact that

Centenary

Photographs by Harriet Crowder

LEFT *Crown Imperial*, HP4472, an imported Danish fabric, screen printed on cotton sateen, available in three colourways. DESIGNER Arne Jacobsen. £2 3s 6d per yd. RIGHT HP4499, a fabric imported from Austria, screen printed on rayon, available in four colourways. DESIGNERS Leo and Greil Wollner. £1 18s 9d per yd.



there is a tactile as well as visual appreciation of wall surfaces, which in the latter case is horribly deceived.)

Sanderson's has always excelled in traditional floral and period papers, flocks and period pastiche. For the celebration centenary it has spared no pains to launch a selection of wallpaper designs and new furnishing fabrics to satisfy an enormous and diverse clientèle. The firm has, in fact, scoured the globe for ideas and assembled a collection of 4,000 – 5,000 designs. Some have been directly commissioned, some imported, some are produced in this country under licence. Two years' work has gone into this attempt to break away from conventional sources. International artists and architects have been approached, and the centenary collection has Frank Lloyd Wright papers and fabrics, and designs by Gio Ponti, Raymond Loewy,

Arne Jacobsen, and fabrics by John Piper, Countess Colbertaldo and Humphrey Spender.

The 1959 international competition for wallpaper and fabric designs, organised by Sanderson's, had 3,000 entries. These were judged by an independent panel of experts, the members being Sir Colin Anderson, Lady Casson, Wyndham Goodden, Paul Reilly and Humphrey Spender; five fabric designs and five wallpapers were awarded prizes.

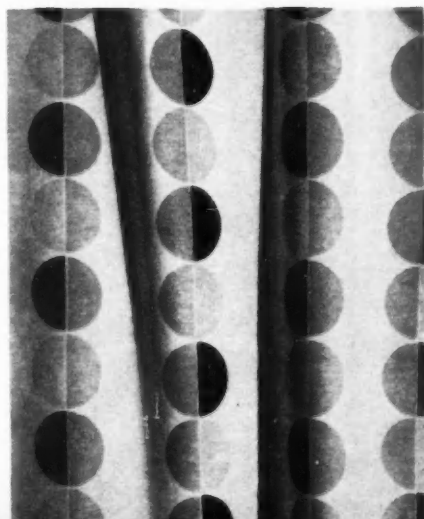
Sanderson's also approached the Royal College of Art for new screen printed textile designs, the best to be selected by the college staff, and in collaboration with the CoID, the firm appointed Wyndham Goodden as consultant designer to select a number of artists from the CoID's Record of Designers to execute fabric designs. The cream of these praiseworthy efforts is illustrated here.

Retail prices, including purchase tax, are quoted. All fabrics illustrated are 48-50 inches wide.



2 *Milan Cathedral*, BP5774, a fabric from the international collection, screen printed on cotton satin faced repp, and available in four colourways. DESIGNER Friedelinde di Colbertaldo Dinzl. £1 14s 6d per yd.

3 *Eclisse*, TP3388, a fabric imported from Italy, screen printed on slub cotton, and available in one colourway (mustard and tan). DESIGNER Gio Ponti. £1 8s 9d per yd.



International fabrics

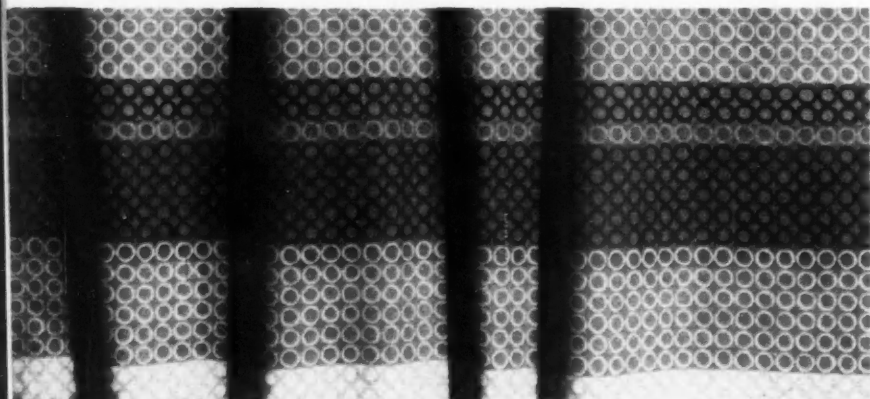
Sanderson's has concentrated on screen prints on cotton, cotton satin, linen union, slub weaves, etc., in its new collection. It is largely the young who buy modern designs; the older and more well-to-do clientèle prefers traditional damasks, velvets, dupion and floral chintzes.

In screen prints there are large scale geometrics on linen union and dupion satin by Frank Lloyd Wright. These were originally designed for F. W. L. Schumacher in New York, and must date a good many years back (they will be objects of interest to architects and historians, as Frank Lloyd Wright did very little textile design). Gio Ponti's circle design, *Eclisse*, **3**, on a slub ground has interesting colour combinations. Arne Jacobsen's flower designs are important as they represent a complete divergence from the current British school of free drawn florals, at present so popular in Scandinavian countries. These all-over designs of vegetable life show a botanist's pre-occupation with flower and leaf structure. His passionate

Centenary

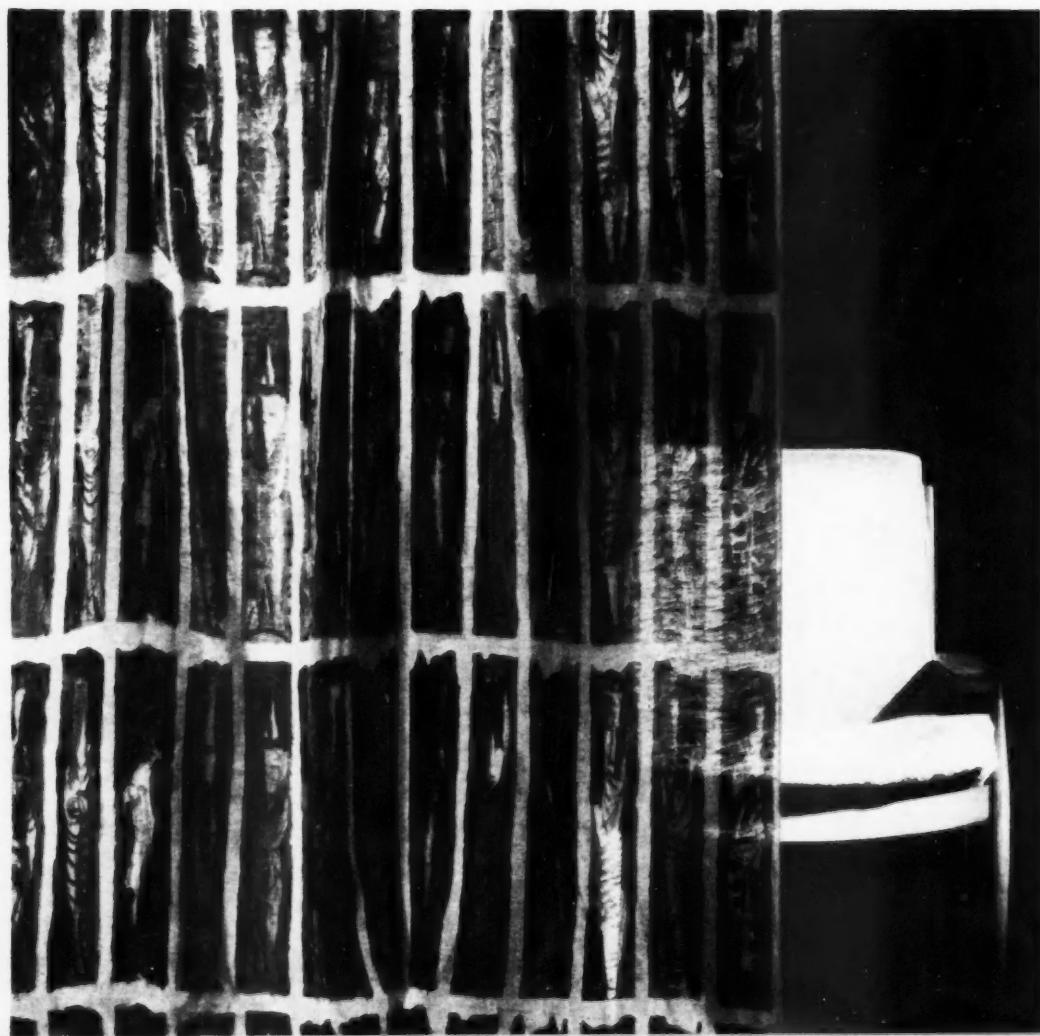
botanical observation combined with simplification and broad pattern effects may have an influence on our younger artists when they have ceased to play with the blown up shapes and skeleton forms of leaf and flower. Mr Jacobsen's *Crown Imperial*, **1**, and *Ditch* are true to plant size. At a distance they resolve into larger rhythms, and drape well. Unfortunately for present taste, the colouring is rather sharp and acid in some examples. Countess Colbertaldo has produced two cotton satin pigment prints, very rich in texture and evocative in design. The fabric can be washed and boiled. The colours of *Milan Cathedral*, **2**, olive, Venetian red, amber gold and rich brown, were worked

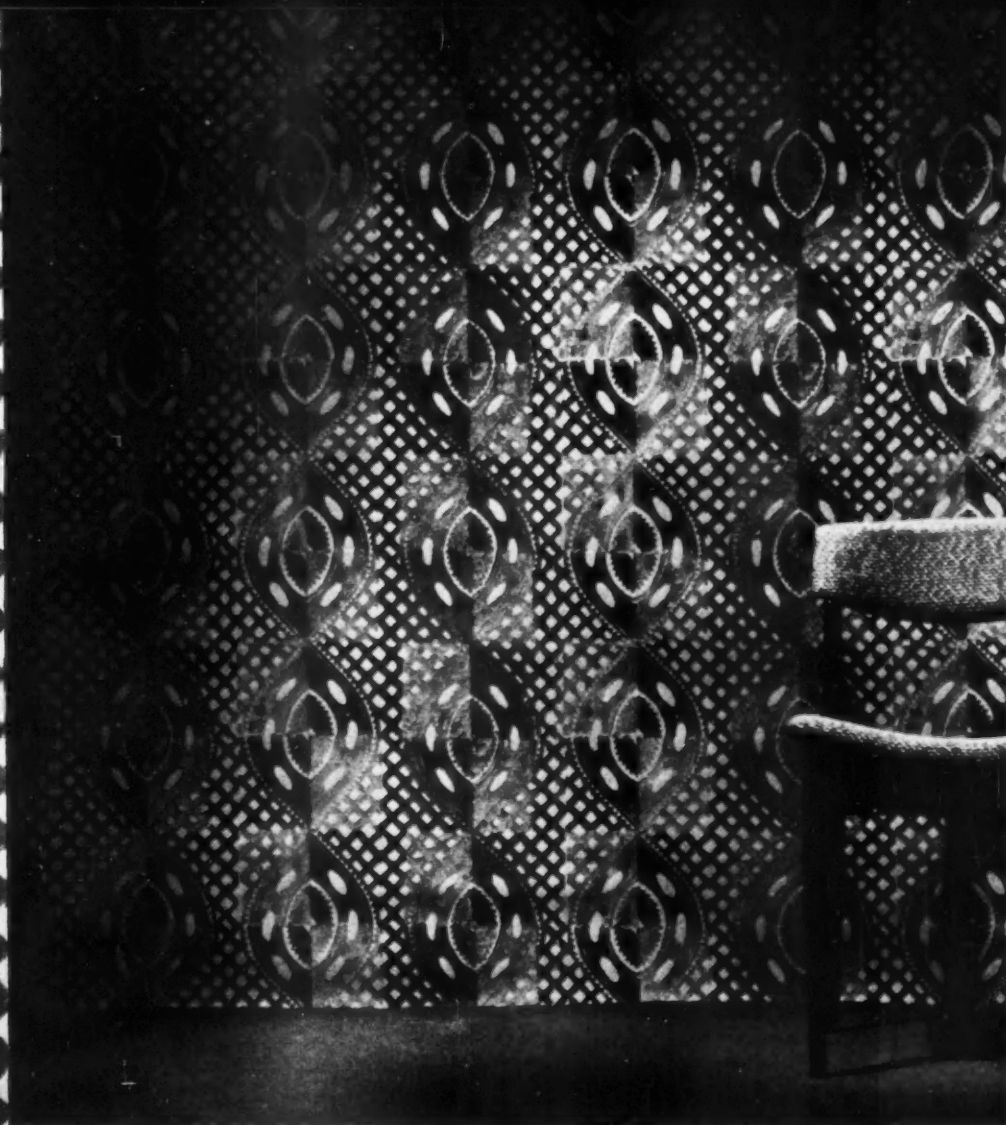
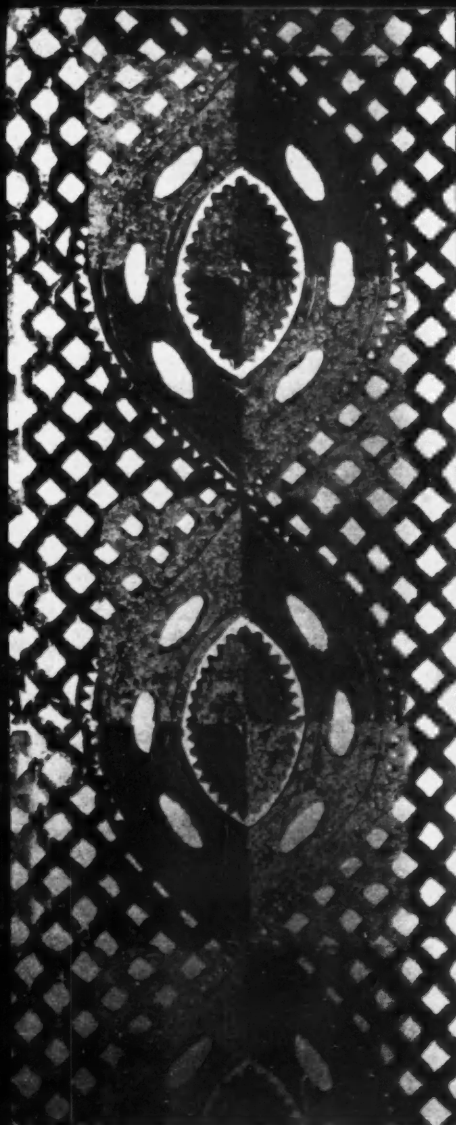
out to tie up with a colour range of velvets. In contrast, John Piper's *Chiesa della Salute* could be used flat as an interesting wall hanging, but it loses tremendously when draped. This particular fabric to my mind is far more suitable for the revived method of treating fabrics pictorially than a collection of hangings from Milan by Fede Cheti, printed on fine cotton. Throughout the collection one is swung back into decorators' land, which is where the vast number of American designs made here on a royalty basis in American colourways also belong. Cristofanetti has created some queer rayon satin fabrics in strange colours, in a post-Sutherland manner.



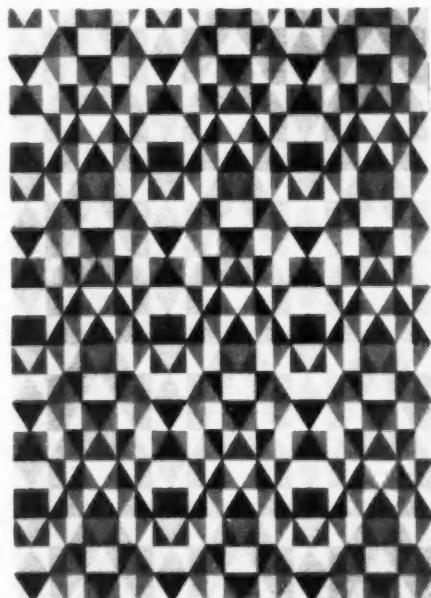
4 HP4005, an imported fabric from Germany, screen printed on cotton, and available in three colourways. 19s per yd.

5 *Arundel*, ZE8953, a fabric from the international collection, screen printed on linen sheer; (also printed in two colourways on cotton satin-faced repp). DESIGNER John Piper. 17s 7d (linen sheer); £1 13s 9d (cotton repp).





▲
6 *Velvet*, a screen print, available in four colourways. DESIGNER Peggy Angus. £2 12s 1d per piece.



7 *Design 706*, a screen print available in three colourways. DESIGNER Frank Lloyd Wright. £3 0s 7d per piece.

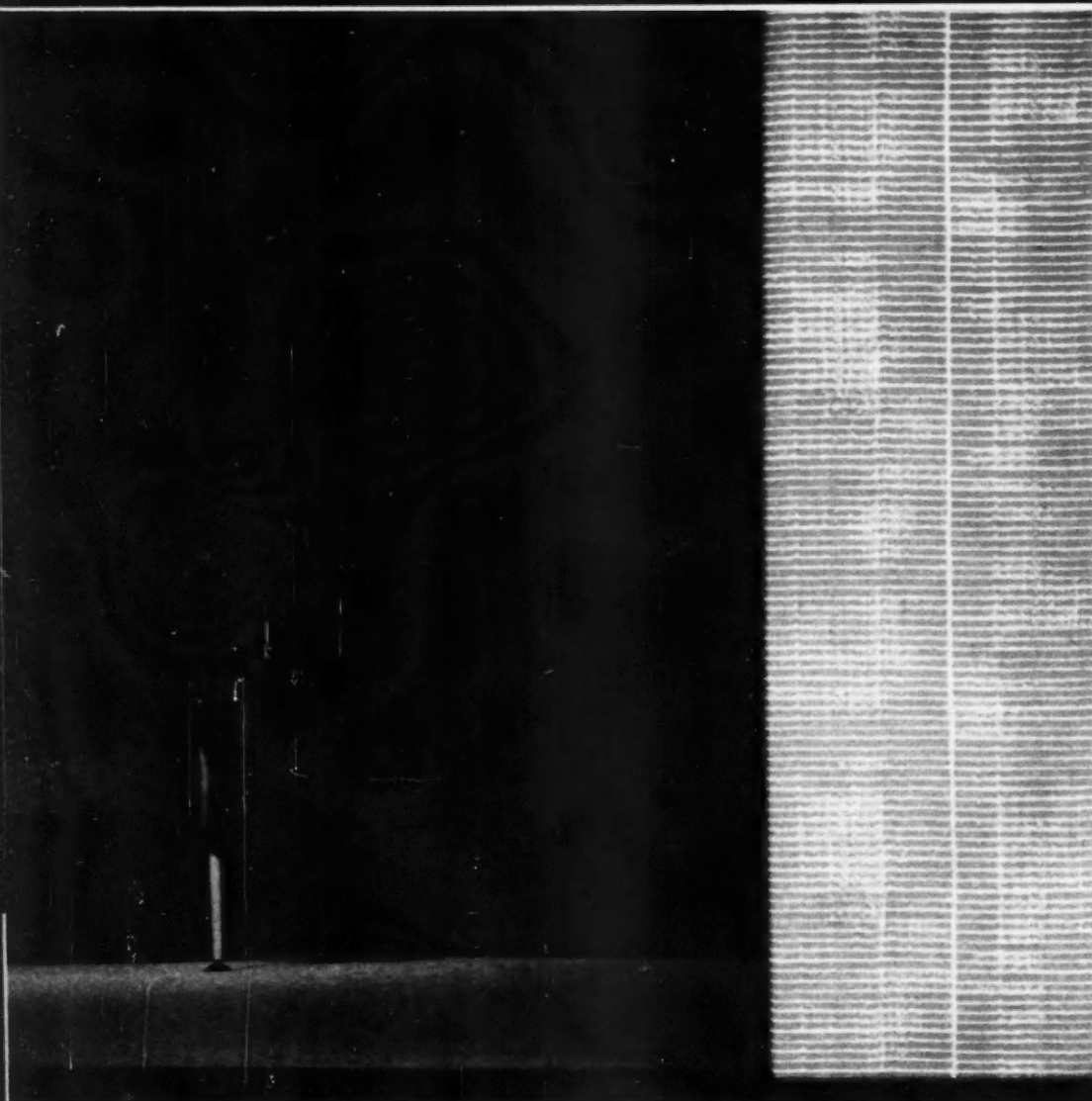
Wallpapers

The outstanding design in the wallpaper collection is, in my opinion, *Velvet*, **6**, a prize winning screen print by Peggy Angus. It is a dense textured pattern on a fairly large scale, based on a cast iron grating, and printed in rust reds, charcoals and greys. It stands comparison with the finest papers made at any period. It achieves the same aims as old damasks – surface rhythm, a delightful complexity, a rich background effect, but it is entirely modern in feeling.

Tricus, **8**, another prize winning screen print by Gordon Crook is interesting, but offers a warning to manufacturers. Designs like this conceived in closely related tones, with a dark motif on a lighter ground are not improved by reversing the tones, or altering the tone values (ie, printing in white on black). In the search for variety these alterations are often attempted, but with unsatisfactory results.

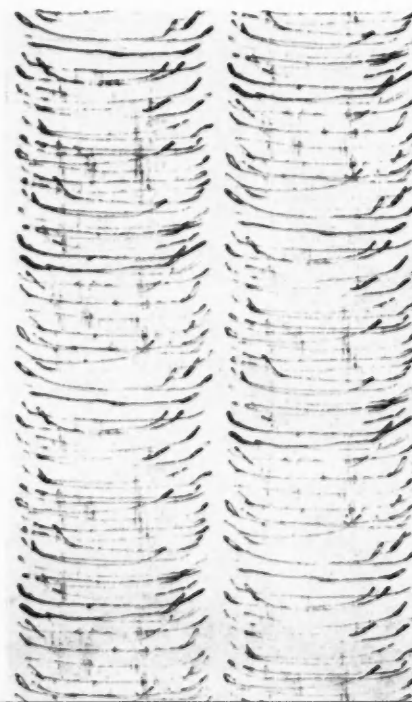
Among the 'quality' papers, the Frank Lloyd Wright geometrical *Design 706*, **7**, looks at first sight as if it should be used for binding books, but on the wall it is impressive. Gio Ponti's circle design *Eclipse* may prove rather dazzling for

Centenary



8 LEFT *Tricus*, a screen print available in five colourways. DESIGNER Gordon Crook. £1 12s 11d per piece. RIGHT *Venetia*, a machine print, available in four colourways. DESIGNER K. J. Toyne. 7s 5d per piece.

domestic use. There are also a great many screen printed papers from America in the collection, printed here on a royalty basis. Of the five prize winning wallpapers three are included in the *Tempora* collection of machine printed designs, and two are screen prints. Many designs that are included in the *Tempora* collection would normally occur in the 'quality' screen printed ranges. Sanderson's feels it can afford to risk its arm in the centenary year on such an enterprise. Maj Nilsson's *Calligraphy*, 9, is a light and elegant background paper. Another winner, *Checkology*, by Alan Parkin and *Alignment*, by Hilary Lister are both examples of what modern roller printing can achieve in terms of grain and texture. A rather mechanical design by Count Sigvard Bernadotte and Acton Björn comes in the *Tempora* collection. Among the 'bread and butter' ranges there are some inexpensive machine printed 'textures', slightly embossed.



9 *Calligraphy*, a machine print in four colourways. DESIGNER Maj Nilsson. 8s 6d per piece.

Royal College of Art and CoID collections

The Royal College of Art has produced some of the best work in the fabric collection, notably *Almond Bough*, **10**, by Margaret Cannon in sheer terylene and cotton, and on slub satin, *Giant Fritillary* by Fay Hillier, and another large scale design, *Viola Flower* (a competition winner) by Robert Dodd. Margaret Cannon's circle design for garden furniture is also a success. The outstanding designs in the CoID collection are *September Garland*, **11**, by Doreen Dyall, and *Pavana*, a huge poppy design by Cliff Holden. The former is a very free dash and spatter

design, which might have been executed in ceiling wax. I personally feel that the enlargement of natural scale which has pre-occupied young designers in the last few years has reached its zenith. After these 'cinerama' adventures perhaps they will return to the study of cell structure under the microscope or, following Mr Jacobsen's inspiration, step down into the wayside ditch. Or they may begin to explore the neglected field of large scale pattern making, so brilliantly exploited by Peggy Angus in wallpaper design.



10 *Almond Bough*, ZE8922, a fabric from the Royal College of Art collection, screen printed on cotton textured satin and available in two colourways. DESIGNER Margaret Cannon. £1 4s 6d per yd.



11 *September Garland*, BP5037, a fabric from the CoID collection, screen printed on cotton poplin, and available in three colourways. DESIGNER Doreen Dyall. £1 10s 6d per yd. (This month's cover is based on a portion of this design, used same size.)

Review of current design

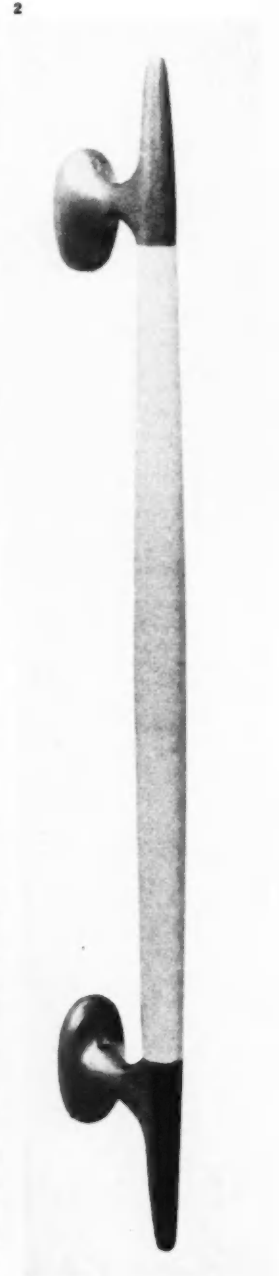
A selection of items recently accepted for 'Design Index', the CoID's photographic and sample record of current well designed British goods. 'Design Index' forms an essential part of The Design Centre, 28 Haymarket, SW1, which is open on week days from 9.30 am - 5.30 pm, and on each Wednesday and Thursday until 9 pm.



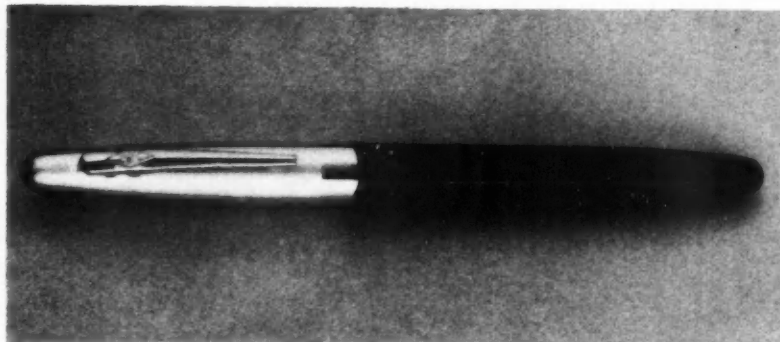
1 Double pedestal desk (model 4056) veneered in mahogany, walnut, teak or rosewood. The square section steel frames and legs are stove-enamelled black or satin chromium plated. This desk is one of a wide range of working tops, cabinets and frames which can be combined in a variety of ways. Height 29 inches; sizes from 5 ft 3 inches by 2 ft 3 inches, to 7 ft by 3 ft. Also available at a height of 27 inches. DESIGNER Robin Day. MAKER S. Hille & Co Ltd. From £70 15s 3d.

2 Door handle (model 11270) with brackets cast in brass or bronze; the grip is of catalin. A choice of seven finishes is offered for the brackets and six for the grip. The handle has been designed for use on either glass or wooden doors. Length 22½ inches. DESIGNER Eric G. Clements. MAKER Tonks (Birmingham) Ltd. From £3 10s each.

3 Tea trolley (model *Pride*) made of yew or ash with drawer fronts of rosewood. Flat surfaces of Formica. Height 34½ inches; width 18 inches; length 30 inches. DESIGNER Ronald Carter. MAKER Walker and Hall Ltd. £77 8s 5d.

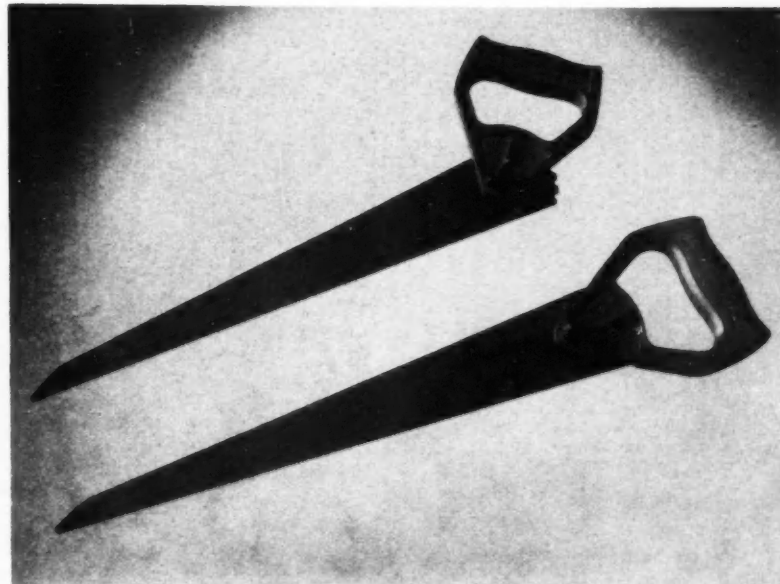


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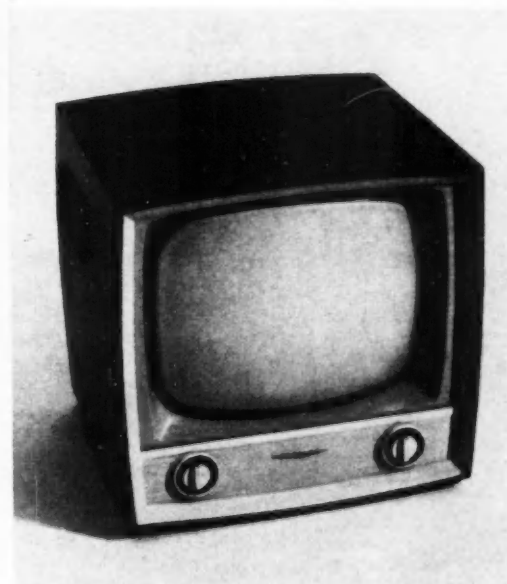


4 Fountain pen (model *Conway 106m*) with Diakon barrel in any of four finishes. The cap is in aluminium with Durosheen finish. Nib of 14-carat gold. It is designed to write at any angle, used in either the right or the left hand. **MAKER** *Conway Stewart and Co Ltd.* 17s 6d.

5



6



5 General purpose saw (model *66*) with tungsten alloy steel blade and zinc base die-cast handle. It is designed to cut both wood and metal as well as other materials. The blade can be swivelled to nine different positions and locked in place by a non-detachable wing nut. Length 19½ inches; weight 15 oz. **DESIGNER** *W. L. Bower.* **MAKER** *James Neill and Co (Sheffield) Ltd.* 15s 6d; 6s 6d (spare blades).

7



6 17-inch, 15-valve television receiver (model *7A91*) with electrostatic-type tube. Cabinet formed from high grade plywood with solid wood front surround. Sapele straight-grained mahogany and sycamore veneers; polyester resin finish. Consumption approximately 140 watts. **DESIGNER** (cabinet) *John W. Moore.* **MAKER** *Co-operative Wholesale Society Ltd.* £65 2s.

7 Nesting armchair (model *Taper Tube MTF 63*); frame of steel tube chromium-plated or stove-enamelled any colour. Latex foam and plastics foam upholstery covered with PVC plastics in a variety of colours and patterns. **MAKER** *Metalliform Ltd.* £5 13s 10d.

Review of current design

8 Oil fired boiler (model *Centramatic 50*) has vertical cylindrical water tube boiler constructed from heavy gauge mild steel. Outer steel casing enamelled cream or white; interchangeable left hand front panels in various colours. The boiler is fully automatic and is supplied ready wired with preset controls. Uses commercial grade paraffin at a maximum of three pints per hour. Consumption 150 watts during ignition and 35 watts during running. Height 36 inches; width 24 inches; depth 21 inches. DESIGNER *Brian Asquith*. MAKER *Newton, Chambers and Co Ltd*. £128; £114s (vitreous-enamelled flue piping in 2-ft lengths).

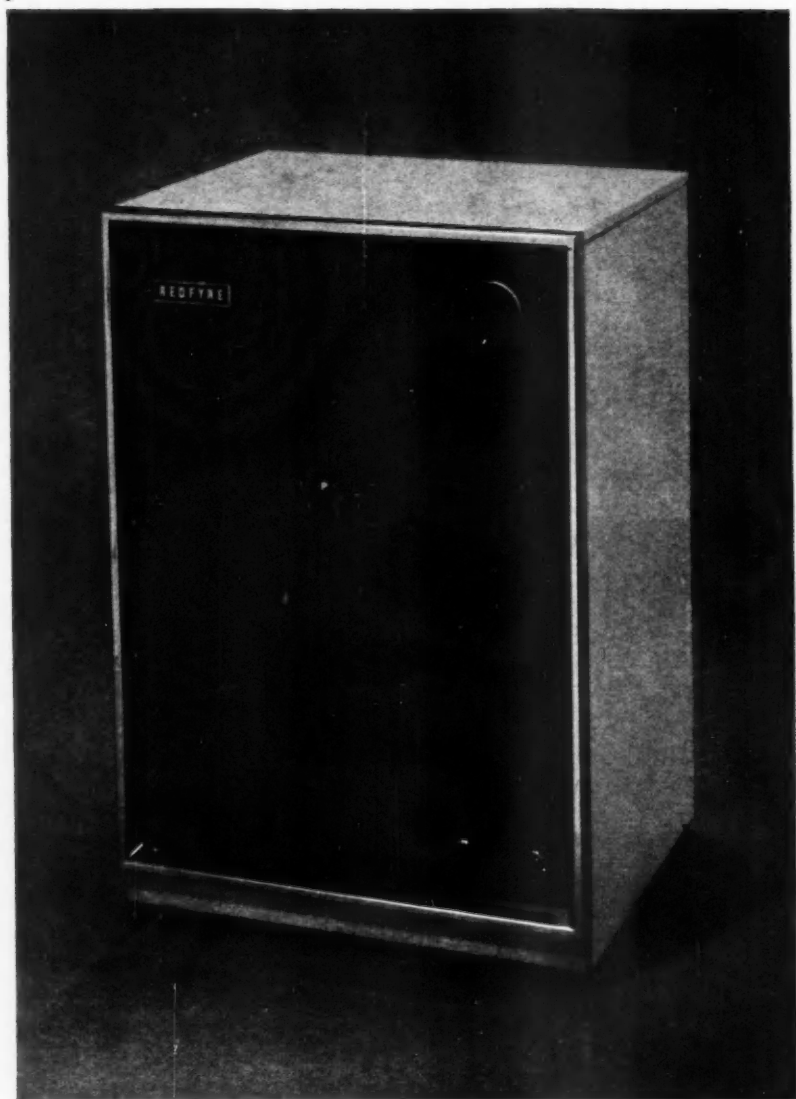
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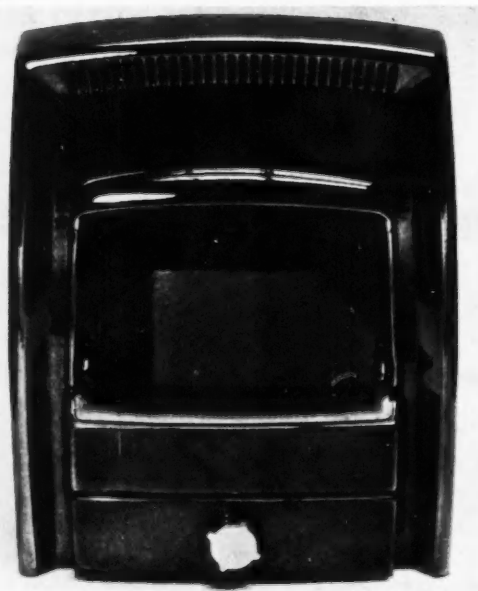
9 Easy chair (model *Lucania*) upholstered in foam rubber on elastic webbing. The frame is steel with tubular legs, brass plated or matt black enamelled. Covered in Vaumol hide, wool cloth or plush moquette. Removable covers available. DESIGNER *Giancarlo de Carlo*. MAKER *Darflex Ltd*. From £42 17s 7d.

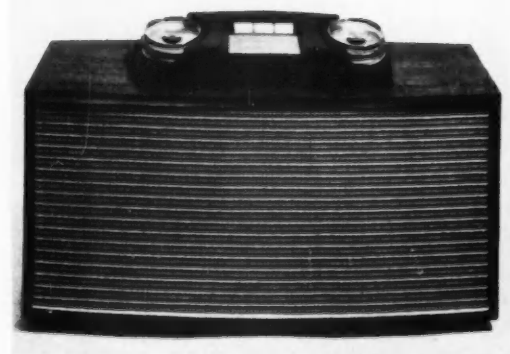
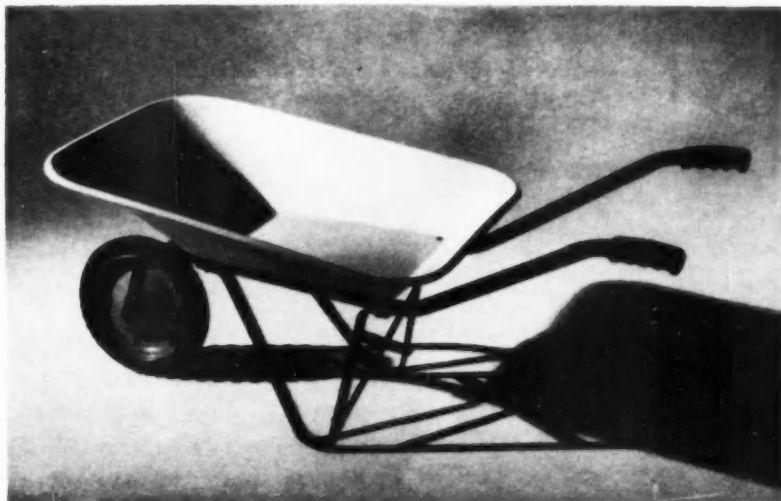
10 Convector fire (model *Rayburn 3*) in vitreous-enamelled cast iron with mild steel convector jacket and ashpan. Available in seven finishes. Sides and back of the firebox are lined with fire brick. Spinwheel control adjusts the ashpit door. Height 24½ inches; width 20½ inches; projection 6½ inches. DESIGNER *David S. Ogle*. MAKER *Callendar Abbots and Dobbie Forbes Ltd*. From £19.

8



10





11 Wheelbarrow (model *Barropak 60F*) with glass fibre body in green, yellow or red. One-inch diameter steel tubing forms the chassis, finished green. Steel wheel runs in nylon bearings. DESIGNER *William Westover*. MAKER *Westover Wheelbarrows Ltd.* £4 17s.

12 Radio receiver with transistor circuitry can be used as either a table or a portable model. The receiver (model *B385*) is in urea and polystyrene, and the cabinet (model *B1*) is of veneered Pacific walnut. The heavy-weight, plastics carrying case has an adjustable shoulder strap. Consumption 17mA (nominal). MAKER *Murphy Radio Ltd.* £22 1s (with carrying case); £6 5s (baffle cabinet).

13 Spades and fork with blades of high carbon steel hardened and tempered and bright polished. The handle is of steel tube, stove-enamelled maroon. Fork available with either D or T handles. DESIGNER *John A. Hattersley*. MAKER *Ward and Payne Ltd.* From £2 5s.

DESIGN AND PEOPLE 1

To an observer it must seem that British industrial designers are not paying so much attention to human engineering (ergonomics) in equipment design as to other equally important factors such as cost, marketing knowledge or appearance. Even if the designer is prepared to tackle the complex problems involved, he may yet find difficulty in obtaining relevant information; and his client may not be prepared to pay for initially intangible improvements in design – such as a decrease in the turnover of his staff due to improved or simplified working conditions.

American designers are in a more fortunate position. Human engineering is rapidly gaining acceptance, and under US Service contracts a welter of information is becoming available. However one industrial design organisation, that of Henry Dreyfuss, has for a long time past considered the application of human engineering as commonplace to a design task. This applies equally to large projects such as aircraft interiors or machine tools as to, say, a fire extinguisher or a ball-point pen. Mr Dreyfuss' book, *Designing for People*, is an indication of his approach in these matters.

To quote a concept from a recent statement on the subject by Mr Dreyfuss: "We bear in mind that the object being worked on is going to be ridden in, sat upon, looked at, talked into, activated, operated, or in some way used by people individually or *en masse*. Therefore if the point of contact between the product and the people becomes a point of friction, the industrial designer has failed. If, on the other hand, people are made safer, more comfortable, more eager to purchase, more efficient, or just plain happier by contact with the product – then the industrial designer has succeeded".

The Dreyfuss office is headed by six partners who are supplemented by a staff of architects, engineers, designers, artists and sculptors. In addition each partner can call in consultants or employ any person he needs for a project.

The following two cases show how human engineering has become an integral part of the design method developed by this team, a method which has been successfully applied to a wide range of products.

Working at a lathe

Since 1939 Henry Dreyfuss has undertaken several projects with The Warner and Swasey Co, a progressive manufacturer of machine tools and earth moving equipment. Comfort and safety, convenience of operation and ease of maintenance are vital factors which were closely examined. In a redesigned series of lathes, careful consideration of the limits of reach, vision, bending, standing and movements of all type has resulted in designs which minimise operator fatigue – thereby reducing the chance of faulty cuts and so increasing output.

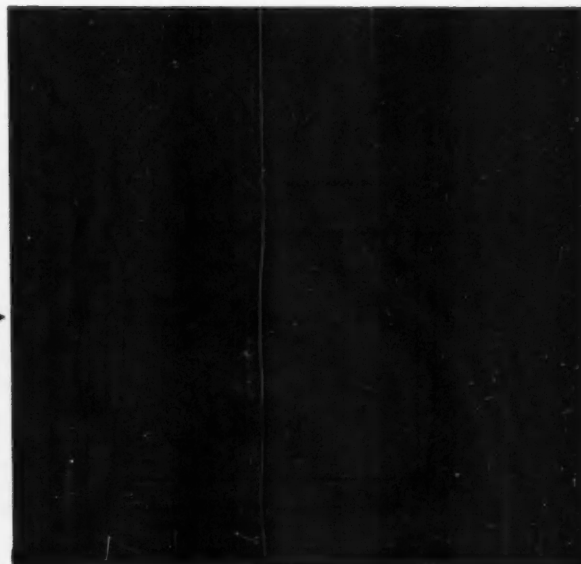
The designer in charge of the project learnt how to operate the machine, putting himself in the place of an operator who may repeat the same tasks day after day. A starting point for such a design must necessarily be based on the physical dimensions of the operators, and requires a careful study of many available statistics. Diagrams were made of operators, of various sizes, standing in normal working positions, with limits of physical dimensions drawn in. **1** is a typical example where the clutch lever at shoulder level can be seen to be in an awkward position. To reach all the controls the operator had to step forward or move sideways. On the redesigned machines, the controls have been so grouped to be within the operator's reach without excessive stretching or movement. The clutch control is now at waist level, **2**, and instead of a long armed lever which required some force for operation, it is replaced by a power assisted control with much less swing.

A comprehensive study of hand movements when starting the original lathes under normal conditions, disclosed

1 Reach required to control the old lathe



2 Controls re-arranged to reduce reach





AMERICAN CONSULTANT DESIGNERS



DESIGN AND PEOPLE 1

The first of two articles showing the approach of
an American consultant designer's office to human engineering

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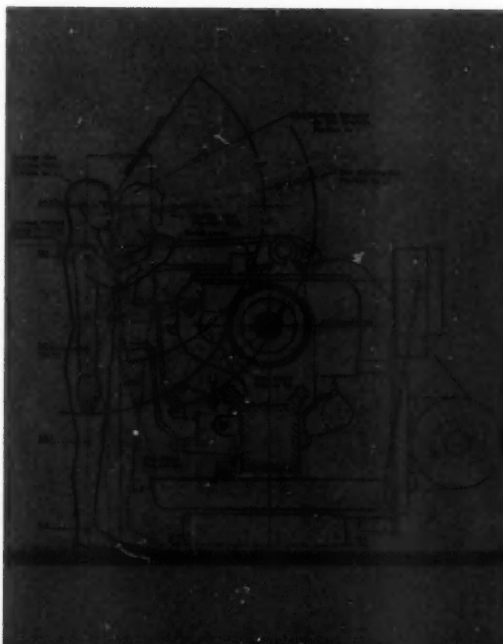
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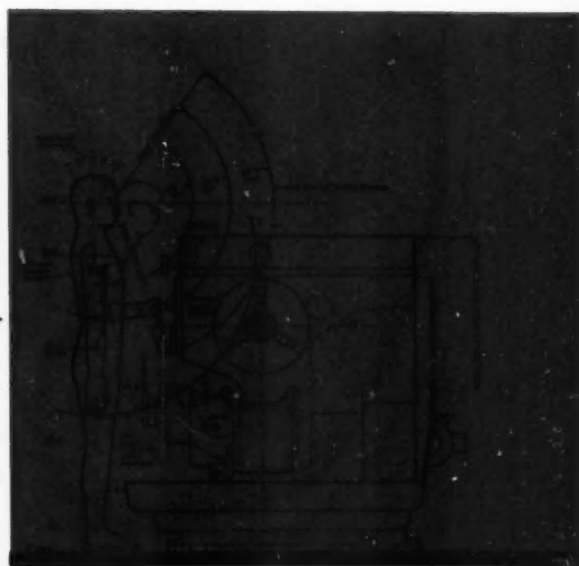
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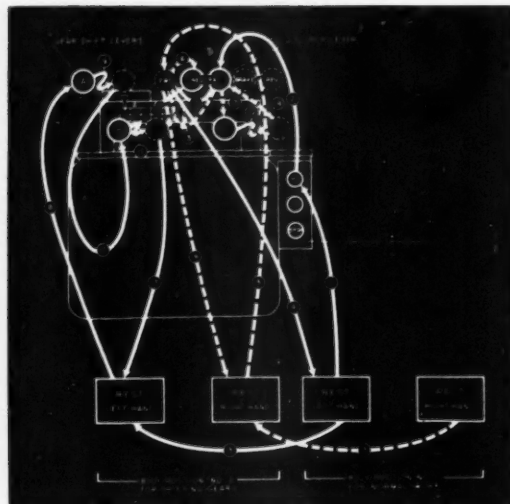
A comprehensive study of hand movements when starting the original lathes under normal conditions, disclosed

1 Reach required to control the old lathe

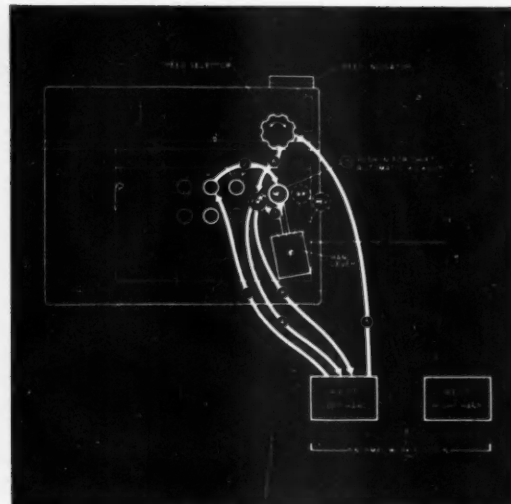


2 Controls rearranged to reduce reach



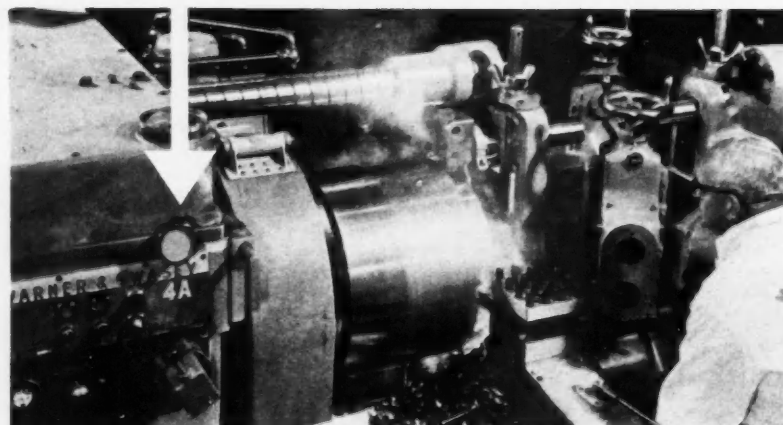
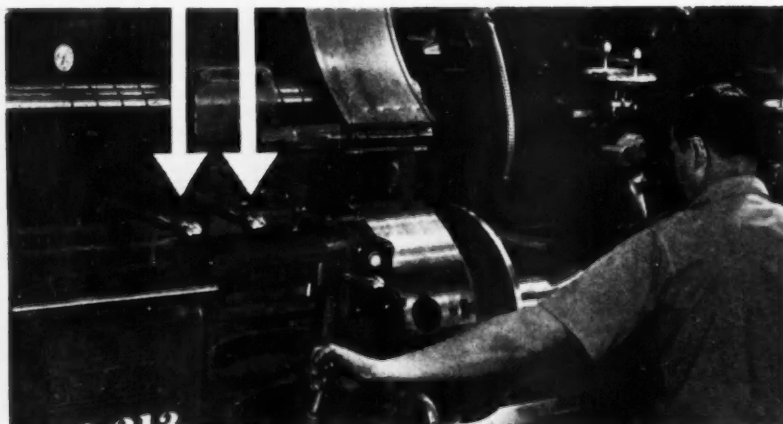


3 Hand movements required to start the earlier machine



4 Hand movements simplified in the new version

5 Levers needed for speed selection were placed high upon the old lathe



6 A knob at a more convenient height has replaced the levers

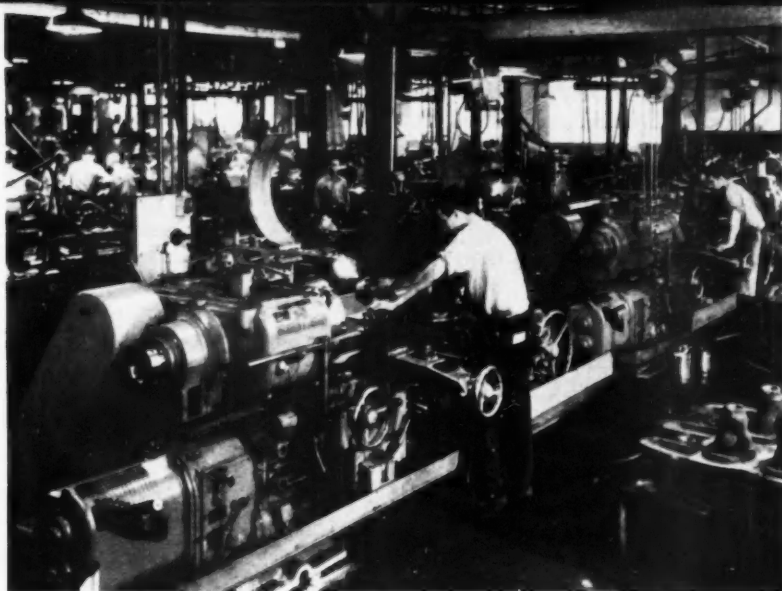
that some 16 hand movements were needed, **3**. The solid line shows left hand motion and the dotted line, the right hand. To shift the gears for speed selection the operator had to move some 3ft to the left. The hand movements for starting the new lathe total only seven, **4**; and there is no need for the operator to move from his normal working position. At first glance these are only simple points, but many photographs and a careful analysis of results were required before these few points could be incorporated in the new designs. The finalised design caters for 95 per cent of potential users, with dimensions suitable for both the smallest user at the 2.5 percentile and the largest at the 97.5 percentile (See *Measurements for Designers* DESIGN 128/48-50).

Colour, finish and visual appeal were further considerations. A continuity of design runs through a wide range of the Warner and Swasey machine tools. With the regrouping of the controls there has been integration of the main drive equipment, gear change and auxiliary power drives in the head stock – contrasting with some of those illustrated in *Centre Lathes* (DESIGN 131/49-53).

But space does not permit more than a brief mention of other interesting design points in this series of lathes. For instance, the speed selector, previously two levers on top of the head stock, **5**, is now a knob, shaped to give an easy grip, **6**; and where possible a single control replaces several. Even the secondary controls have a smaller swing – and power operated controls minimise the operator's efforts. The complete effect of the comprehensive design studies are well contrasted in **7** and **8** – the old and new versions of the Warner and Swasey 3A lathe.

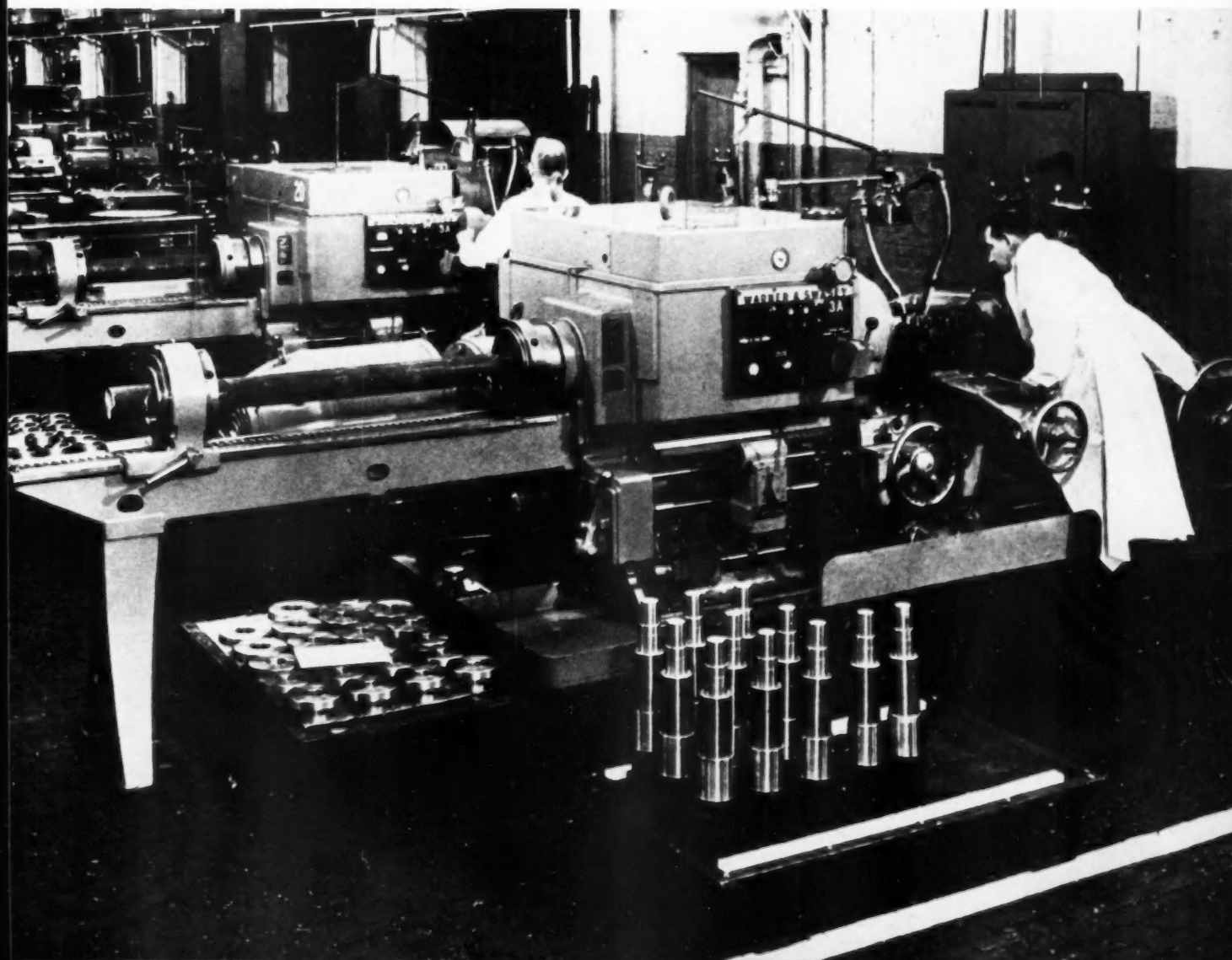
Earth moving equipment

Besides machine tools Henry Dreyfuss has worked closely with The Warner and Swasey Co on the design of its earth moving Gradalls. The studies commenced with a thorough investigation of existing earth moving equip-



7 Old version of the Warner & Swasey 3A lathe

8 New version of the lathe





ment: designers learnt to operate Gradalls currently on the market to get an intimate knowledge of the operator's problems; movements of operators were photographed and charted for analysis; statistical surveys of physical and visual requirements were closely studied; and diagrams were assembled, relating 95 per cent of potential operators to their working conditions within the driver's and operator's cabs. Such studies acted as a basic reference for the design of both the crawler model, **9**, and the truck mounted type, **10**.

Access, seating, safety, hand and foot controls, visibility, comfort and maintenance – all were closely examined for both the operator's and the driver's cabs. Various experimental arrangements for controls were tried in full scale models of the cab to reach a compromise layout.

Each process – investigation, survey, analysis and trial – has been brought together to produce a bold, simplified

geometric design. Notable points in the design are: easy access to the cabs, **11**, with a single platform allowing the operator to walk round to any work area; simple shapes – enabling dirt and debris to be easily removed; accessibility to working parts – as in the single, hinged cover over the rear of the truck's engine which swings away to expose the mechanism inside; and a distinctive appearance – with fine detailing, **12**, suggesting robust equipment and first class workmanship.

A part of the story

These two short histories of comprehensive design studies emphasise the thoroughness of a method and indicate the way in which the same basic ideas are applied to large equipment. But human engineering can be applied to other more modest products, and some will be illustrated in *DESIGN* for July.

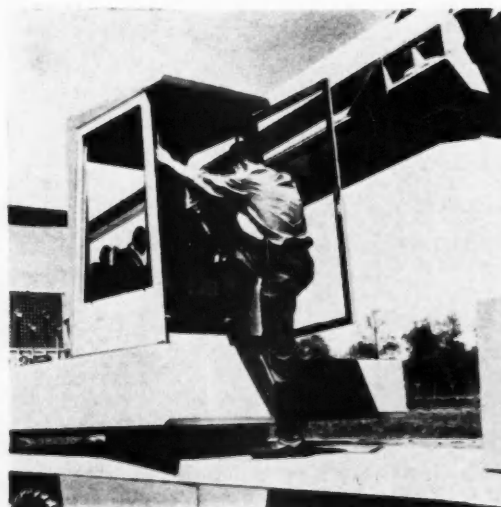
9 Crawler model of the Warner & Swasey earth moving Gradall



10 Truck-mounted version



11 Easy access to cab



12 Good detail design

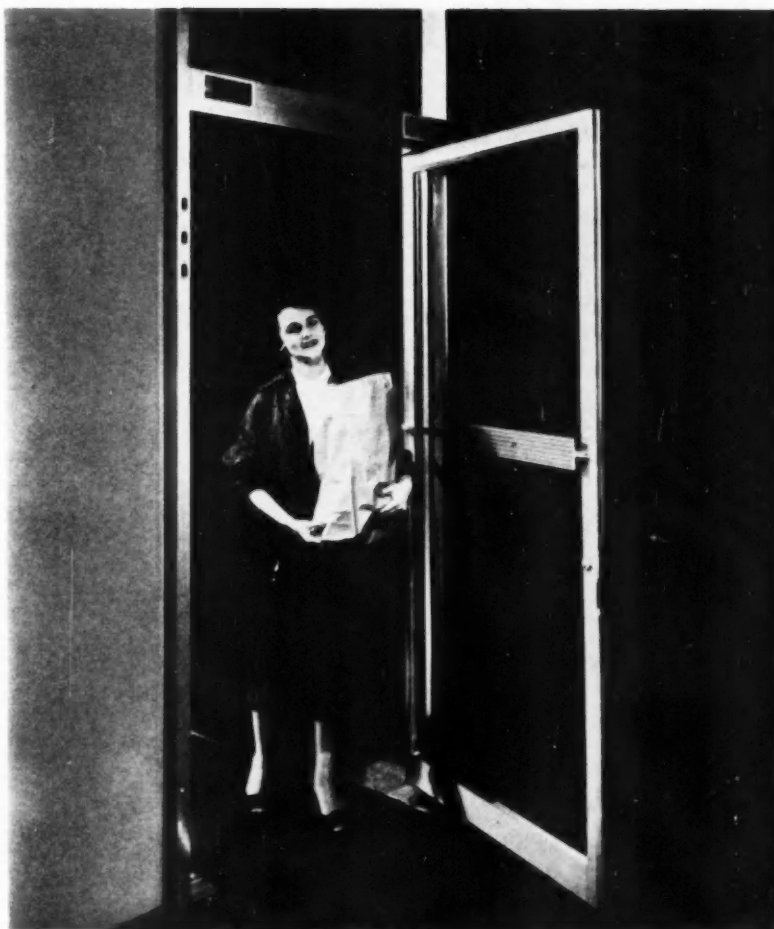


DIRECTIONS

A miscellany of new products and ideas from abroad

USA: automatic door

Automatic doors are less common here than in the USA, where most combine electrics and hydraulics in their operating mechanisms. This example is unusual in that it is both actuated and operated by electricity alone. This has allowed the gear to be housed inconspicuously in the transom above the door, thus disposing of often unsightly, exposed mechanisms. The door is actuated by the floor mats and the mechanism is designed to counteract any wind pressures there may be so that it remains properly closed. There is a resilient plastics weather strip to prevent injury if fingers are caught. **MAKER** *Kawneer Co.*



USA: television receiver

The shapes of television screens, which have influenced the shapes of many other products during the past 10 years, are due, it seems, for a change. In this receiver the well known, softly curving 'quartic' shape has been replaced with something much more closely related to the old fashioned rectangle. Perhaps when a perfectly rectangular screen is achieved in another 10 years it will be hailed as a major discovery. In the meantime this model introduces other new features. The screen itself has grown to 23 inches, and the surrounding picture frame glows softly to reduce the effect of glare which produces eye strain. In addition there is a radio remote control operating panel. Yet it is surprising with all these developments that the manufacturer, in common with most other radio firms on both sides of the Atlantic, should persist in turning out what looks like a converted sideboard rather than an advanced technical appliance. **MAKER** *Sylvania Home Electronics Corp.*

continued



USA: electric coffee makers

Coffee making is considered even more a ritual than tea making. Most experts, however, agree that the freshly ground coffee should be percolated. Something of a revolution in coffee makers is apparent in new designs from the United States. The best coffee makers consist of a container, an inner diffuser to take the coffee, and an electric element thermostatically controlled to bring the water to the boil and then keep the coffee simmering. Several fresh developments are apparent: one is the almost complete disappearance of the spout, making for easier cleaning (as in the Westinghouse design, *bottom*) another is that containers are now sometimes made of glass (as in the Silex design, *below*). Also there are some which are totally immersible. The Westinghouse has a signal lamp to show when the coffee is ready. Both the designs shown here are carefully thought out, but show typical distorted lettering on their name plates. None of these models is available for the British market.

PETER E. M. SHARP



Japan: industrial design competition

Evidence of Japan's growing prowess in creative industrial design can be seen in this selection from 18 winning designs in the eighth Mainichi Press competition. (The seventh competition was reviewed in *DESIGN* 130, 52-57.) As in previous competitions the categories are chosen by a number of sponsor firms each of which makes a preliminary selection before the final choice is made by the judging panel. The competition is for new designs which are submitted mostly in the form of models, prototypes and drawings. This tends to encourage a more experimental approach compared with other national competitions such as the Italian *Compasso d'Oro* or our own *Design Centre Awards*, where models must be in current production. Yet the practicability of the designs is by no means ignored - in fact the majority of winners are by well known Japanese companies which are thus able to incorporate the latest technical advances. Even if a design never goes into production, this competition provides a rare opportunity for creative thinking among staff and consultant designers, often denied to their counterparts in this country.

The judges are particularly concerned that the winning designs should be original in conception, and no doubt being sensitive to Japan's pre-war reputation for plagiarism, a special investigation is undertaken by the Patent Agency so that any imitative design can be excluded. At the same time the competition winners are protected by registration.



The judging panel in session

| | |
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| 1 | 2 |
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| 5 | 6 |

opposite page

1 Portable transistor radio. DESIGNER *Takiko Hashiki*, for *Hitachi Manufacturing Co Ltd*.

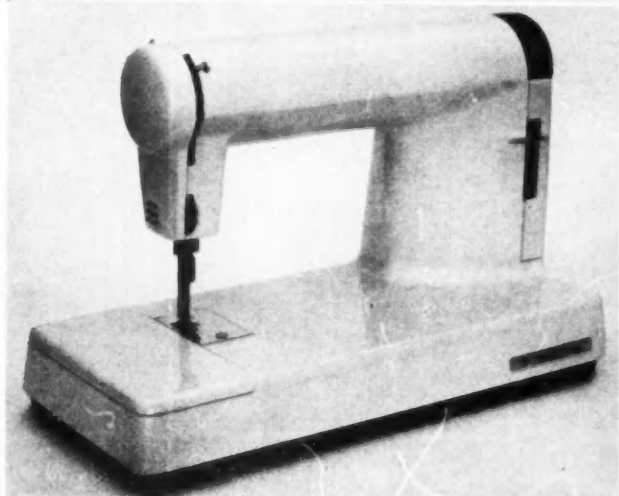
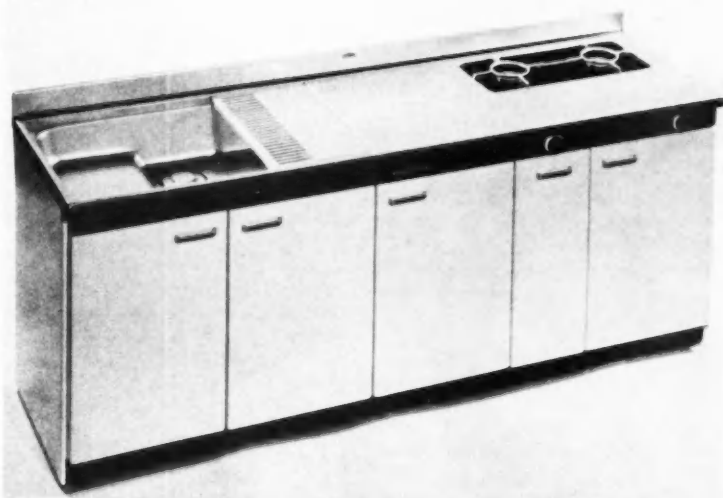
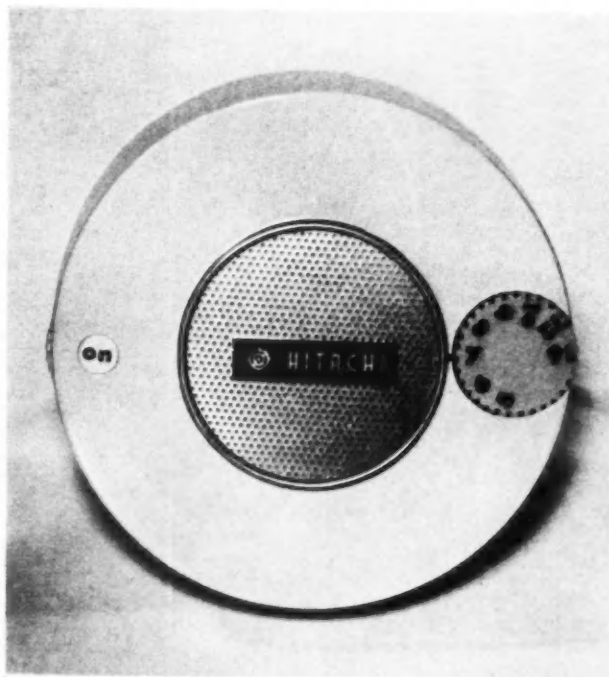
2 Portable tape recorder, winner of the first prize. DESIGNER *Tadashi Saito*, for *Sony Co Ltd*.

3 Kitchen sink unit incorporating gas hot plate. DESIGNER *Tetsunori Aoki*, for *Hakamada Kingoku Kogyo Co Ltd*.

4 Vacuum cleaner. DESIGNER *Koshi Yamaguchi*, for *Hitachi Manufacturing Co Ltd*.

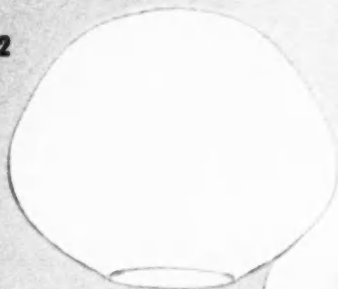
5 Sewing machine. DESIGNER *GK Industrial Design Study Group*, for *Aichi Industry Co Ltd*.

6 50 cc moped. DESIGNERS *Tatsuo Sugawara*, *Yasuhiro Komori* and *Key Toyokawa*, for *Suzuki Motors Industry Co Ltd*.

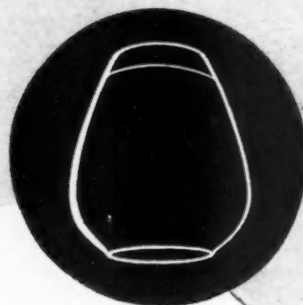


new range

U52



U50

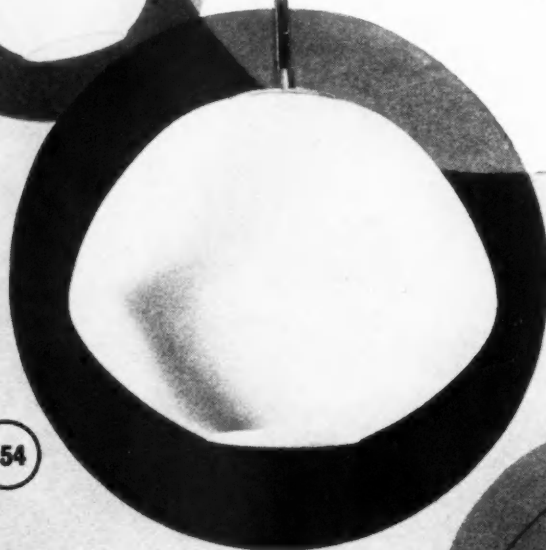


A new range of lighting fittings designed for general use, the glasses are of modern design with open ends to facilitate maintenance, the fixings are safe and simple. All glassware is British made 3-ply satin finish opal, reducing glare and providing an efficient, uniform distribution of light.

U51



U54



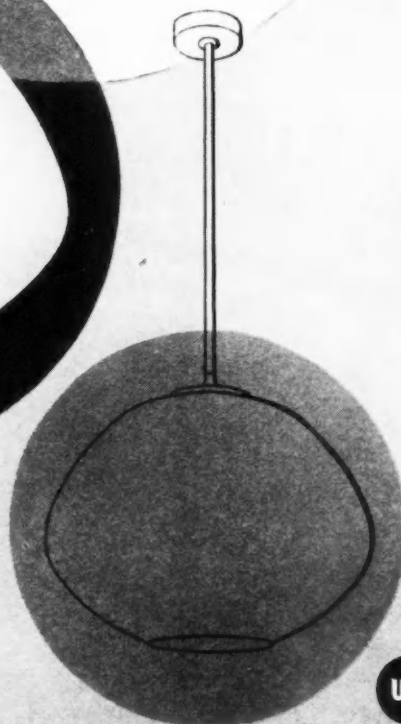
fine fittings by

TROUGHTON & YOUNG

TROUGHTON & YOUNG (Lighting) LTD.,
The Lighting Centre, 143 Knightsbridge, London, S.W.1

Telephone: KENSington 3444
And at Rodney Street, Liverpool 1

U53



RFW.41

Quotes

Designers' aims defined

From The Responsibilities of the Industrial Designer, a talk given by Walter Dorwin Teague to the Detroit Chapter of The Industrial Designers' Institute:

"... The professional responsibilities of the industrial designer fall into several categories, but first are one's responsibilities to design itself. ... The simple, even obvious, principles I list here have guided my professional activities for more than 30 years.

"... In the first place, design should help a thing to do its job better. Any object should emerge from the designer's hands more efficient than when it reached him.

"... Secondly, you must make it *convenient* to use, and that too applies to any category of thing made to be used by man, woman or child – obviously their needs are different. This is where the much touted activity called human engineering comes in: it has something to contribute, but not nearly as much as its devotees think. We designers have always been human engineers – we have had to make things fit people, and if we did not we flopped as designers.

"... Thirdly, a product should be designed so that its price is a fair measure of its value in service. In other words, it should suit the production methods and the materials required to make it a reality, and reduce these to the minimum compatible with high efficiency, low maintenance and long life. Thus it will deliver the greatest serviceability to the greatest number of people for the longest time.

"... And so it follows that contemporary design for machine and mass production must be simple design, and simplicity becomes the fourth objective of the conscientious designer. Machines can be made to produce elaboration and non-essential adornment only very badly and at excessive cost. It took the Industrial Revolution a long time to arrive at this understanding of itself.

"... There is a world-wide, powerful trend toward simplicity of external effect, high efficiency of performance, not at all incompatible with colour, gaiety and charm. This trend dominates all but a few exceptions among the various fields of production – and they shall be nameless: they are bucking a current too strong to resist.

THE EXTRA INGREDIENT

"The four design objectives I have named so far – efficiency, convenience, economy and simplicity – can all be attained by an analytical approach: they require a high degree of intelligence and a sturdy conscience, but not anything that can be called genius or even talent. If these were all the designer accomplished he would achieve a sound, pedestrian result – blameless but not admirable. But there is a fifth ingredient of really good design, which is unpredictable and delightful and cannot be worked out by any deductive or slide-rule method: it is the personal flash of inspiration which the designer contributes out of his inner resources, which arouses the keen sense of pleasure we call 'beauty'. We transfer this aesthetic pleasure within us to the object we are contemplating, and call it beautiful.

"I have always maintained that engineers should be trained in aesthetics, since not even a mechanical device can be right unless it *looks* right. This would

make every engineer a good designer and cut much of the ground out from under the industrial designer's feet. But in this sub-divided world of ours it works the other way: every designer today must be enough of an engineer to translate engineering into aesthetic terms.

CLIENT RELATIONSHIPS

"... We work very closely with our clients, their engineers and executives, so that we thoroughly understand the conditions of success in their business. But we consider that design is our business not theirs. We never show them sketches and never present alternatives.

"Here is where the designer's professional responsibility to his client and the public comes in – the two are inseparable. It is the designer's obligation not only to find and develop the one best solution for the client's problem, but it is also his obligation to convince the client that it is the best solution. We do it by presenting our one right solution in so complete and finished a form that no one can get a fingernail under any edge to pry it loose. We have a remarkable record of approvals by this method.

"... I believe it is the designer's responsibility to be as courageous as he is conscientious; he must be tactful and patient but he must also be hard and unyielding in matters of principle; he must be adequately vocal and able to convince his clients of the soundness of his methods and the rightness of his solutions. He must have deep respect for his public, the ultimate consumer, and cherish the conviction that when the consumer is given a choice between a design and a *better* design, under equal auspices, enough people will prefer the better design to give it resounding success."

Car accidents and electronics

James L. Malfetti, associate professor of education, Teachers College, Columbia University, in an article on Traffic Safety, the Driver and Electronics (reprinted in Teachers College Record, Vol 61, No 2):

"There are two collisions in an accident: one is the collision of the vehicle with another object, usually a vehicle; the second is the impact of the riders against the interior of the vehicle. It is the second collision which is directly responsible for injuries or death to driver and passengers. On the basis of carefully regulated studies, it might be estimated that if cars were constructed for proper packaging, as many as 75 per cent of the fatalities could be reduced to injuries. Proper packaging, as it has so far been developed, includes: doors which will not open on impact; seats and cushions which will not become displaced on impact; energy absorbing interiors, and devices to keep people in their seats on impact.

"Improved packaging should be developed, endorsed, and built into automobiles, perhaps even on a compulsory basis. It will doubtless reduce fatalities and the severity of injuries suffered in accidents.

PREVENTING ACCIDENTS

"With engineering wisdom we might go a step beyond packaging and try to *prevent* accidents.

"... Traffic engineers, highway engineers and planners work toward accident reduction through improvements to the road. In the past decade they have made considerable strides. The major approach of traffic engineers is through improved traffic flow and control. ... Automatic devices to improve traffic flow are already in use and are increasing.

"... While we are seeking solutions to current problems, we must also project five, 10, 15 years from now and consider what types of vehicles we

shall have and how we shall drive them. Only as we visualise the future can we hope to keep our solutions abreast of the problems. And so with automatic devices: though they can help immediately in accident reduction, the outlook is necessarily short-range. All the more reason to get the research needed for these devices under way at once.

"... We must also look into the potential for comprehensive electronic systems to supplement and ultimately to provide a substitute for the judgment of the driver. There seems little doubt that the tools for the electronic control of traffic are now in the hands of scientists and technicians. Indeed, some remarkable progress has been made.

"... When various proposed systems are examined, the relation of electronic traffic control to highway engineering is at once clear. With the exception of a radar-like device already tested by the Bendix Aviation Corporation, which offers collision protection through apparatus installed within the vehicle, all the suggested systems call for electronic installations in and along the highway. Some involve complementary equipment in the car itself.

"... The basic system described by electronics scientists with the Radio Corporation of America utilises a cable and inductance loops buried in the highway. The loops, actuated by the passage of a car over them, can perform several functions. In its simplest form the installation actuates a series of lights at the side of the road. Lights *behind* the car will serve to warn vehicles following in the same lane (especially useful in fog and under other conditions causing poor visibility), while lights actuated *ahead* of the car will signal its approach to oncoming traffic (of special significance around a curve or over the crest of a hill). This type of warning requires no equipment in the car. To proceed a step further, rear-end collisions (a major problem on turnpikes) can be averted. The *following* car is equipped with a receiver which will be excited by a 'flying tail' of electronic warning signals emitted from the roadway under the influence of the vehicle *ahead* as it passes over the loops buried in the highway. These signals will be translated into visual or auditory warnings in the rear car, varying in intensity with proximity to the car ahead. Thus the driver gets his warning from the dashboard of his car, rather than from lights along the roadside. This system has the obvious advantage of being uninfluenced by weather conditions and poor visibility."

Selling to Sweden

P. B. Kollberg, counsellor in charge of economic and financial affairs at the Swedish Embassy, discussed British exports to Sweden at the preview of The International Gifts and Fancy Goods Fair in Blackpool recently:

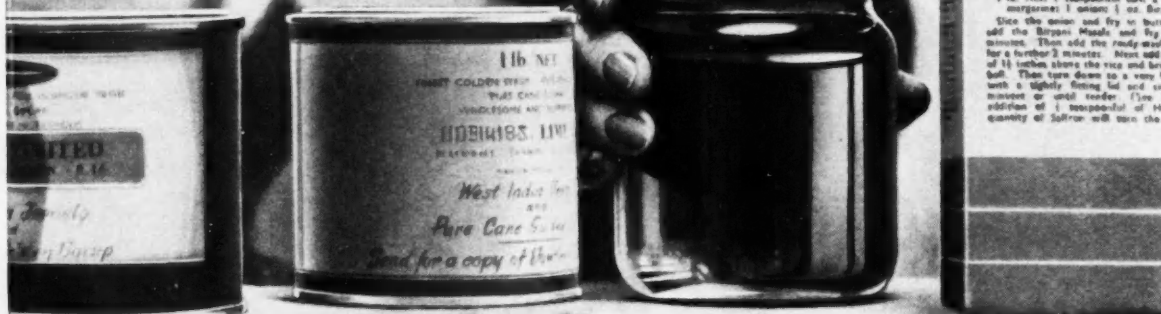
We welcome increased efforts by British exporters of consumer goods to sell in the Scandinavian market – following the advent of the Outer Seven.

"... *The International Gifts and Fancy Goods Fair* is already a big achievement. But its success should be followed through. For example, British success in America has its roots in a positive attitude to that market, expressed in a sustained determination to sell there and to organise accordingly. We hope that the British exporters will assume a comparable attitude to Scandinavia. Our businessmen want to buy quality goods. British exporters have such quality goods, and we are looking forward to the prospect of buying more from Britain. We also hope to raise our sales of the broad range of consumer goods that we send to Britain."

CONSUMER RESEARCH SHOWS THAT 73% PREFER TO BUY FOODSTUFFS DRINKS AND PHARMACEUTICALS PROTECTED BY GLASS

Side-by-side
shelf test proves
GLASS packing
sells more goods...

even when they are
deliberately marked up



Identical goods in alternative containers

FRUIT SALAD
GLASS OUTSOLD OTHER PACK

10 to 3



PEARS
GLASS OUTSOLD OTHER PACK

5 to 2



SYRUP
GLASS OUTSOLD OTHER PACK

9 to 5



SULTANAS
GLASS OUTSOLD OTHER PACK

3 to 2



In a test just completed, a range of identical pairs of foodstuffs, packed in glass and an alternative container, were placed side-by-side on the shelves of 33 self-service stores in London, Manchester, Glasgow and Newcastle.

All goods packed in glass were deliberately marked up by amounts varying from 1½d. to 4d. each. Despite this price loading, independently audited sales figures showed glass to be a clear winner. On twelve foodstuffs tested, 87% more goods were sold in glass and they attracted over 120% more expenditure than the goods in the alternative containers.

Full details of this impressive test are to be published soon. Your glass container manufacturer will be happy to let you have a copy on request.

See how good things are in

GLASS



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Miscellany



Swan's way

How can a manufacturer change an old-established design without losing goodwill? Designers are often asked this question, and one answer is to convince the manufacturer that the public's respect for his old design is far smaller than he thinks. But from now on, another answer is to refer him to the re-design of Bryant & May Ltd's *Swan Vestas* matchbox. How many people are aware that this familiar object – until now virtually unchanged during the lifetime of most of us – has in fact been changed? A

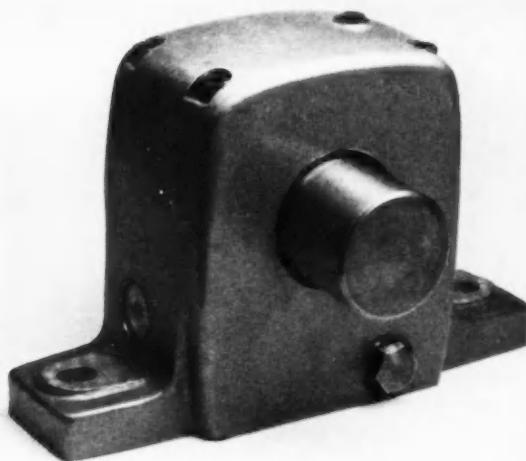
Bearing housing

The Glacier Metal Co Ltd is producing a spherical journal bearing for use in drive shaft installations where self-alignment is required and where the bearing may have to take thrust as well as radial loading. These combined properties are obtained by locating a spherical journal on the shaft, the journal being split to enable assembly around the shaft.

Such a bearing must necessarily be larger than ordinary journals for an equivalent shaft size. Nevertheless the housing, designed by Gerald Benney, minimises any suggestion of bulkiness in a form

which is also easy to cast. Oil level, filler and drainage points for the self-contained oiling system are located in the housing and are easily accessible when the bearing is installed.

The illustration shows a bearing housing for a 2½-inch diameter shaft. This housing is sand-cast, but die-castings are envisaged, and a range of bearings with housings to Mr Benney's pattern is planned. The firm is to be congratulated on its design policy; it is one of the few makers of standard engineering components to call in a designer. W. H. MAYALL



member of the audience on a recent design course said "I see they've redesigned the back of the box and left the front unchanged"; this could be considered a tribute to the subtlety of the front's re-design. In fact, the swan has been turned from left to right, the lettering of the word *Swan* has been changed from capitals to upper and lower case, and a panel containing the words "The smoker's match" has been moved from top to bottom.

Some odd features of the old design have been re-

tained, notably the curvature of 'Swan', which seems to be arching over an invisible bridge. Although the design has (except in its unchanged colouring) lost its old-fashioned look, one might have assumed this was a transitional stage, with something more conspicuously modern in the offing; but Bryant & May does not see it this way, evidently considering that after more than 60 stationary years the swan has now moved far enough.

The designer was Stuart Rose.

ALEC DAVIS

Showroom in the Potteries

Doulton Fine China Ltd has recently opened a new showroom at its factory in Burslem. While the majority of 'on-the-site' showrooms in the Potteries tend to be rather makeshift, this has been carefully planned to give the firm's products a simple and attractive setting.

The showroom was designed by J. W. Ledger, one of Doulton's design staff. His chief problem was to devise a setting which would show a vast number of small objects to their best advantage. The showroom is divided by an island display unit. This consists of two sections arranged in an L shape; the sections are made up of 5-ft squares of opal glass alternated with reeded walnut, and supported by a framework of metal rods. The glass and walnut shelving carries its own concealed lighting.

Various display units are wall mounted round the room. The china dinner ware is displayed in modular fittings, and in table settings. Three of the walls are covered with fabric and the fourth wall is in reeded beech. The high standard of finish and carefully chosen colours contribute a feeling of quality that is all too rare in this kind of showroom.



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Haymarket, London



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Exhibits in The Design Centre are seen by a daily average of 2,200 buyers, manufacturers, architects and members of the general public.

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*The Design Centre comes to Nigeria :
at the Kingsway Stores, Lagos,
January 1960*



NEWS

PEOPLE

Designer and experimenter

Clive Latimer, 44, the furniture designer whose appointment as consultant to F. Austin (Layton) Ltd has recently been announced (DESIGN 135 65), was to have been a chemist, but he does not regret failing to qualify. With an appreciation of the visual arts allied to a bent for mechanical inventiveness, his thoughts turned towards design when, in the early 'thirties, he became aware of the achievements of the



Clive Latimer, with one of the prototype chairs he has recently designed and made in his workshop.

Bauhaus. "It was a revelation", he recalls; "here were logic and order, but also adventure".

His own first steps in the design field were in printing (he was associated with a small press in the period before the war), but he found that his talent lay essentially in the field of structural and three-dimensional design. He became particularly interested in the problems of modular unit furniture and chair design and made several experimental chairs for Heal's, using aluminium, veneers and new glues; these were technically interesting, although they were not commercially acceptable. However, designs in these materials were shown at the *Britain Can Make It* exhibition. From 1947-49 Mr Latimer spent an invaluable 18 months on the Board of Trade utility furniture design panel, under Gordon Russell, and in 1948 he and Robin Day jointly entered an American sponsored, international competition for low-cost furniture, and won a first prize. (Unfortunately, however, the original designs were never made up.) But commissions followed for bedroom furniture by S. Hille & Co Ltd, and Mr Latimer also did work for the *Festival of Britain*.

He then established a business incorporating a workshop; a workshop, he had decided, was essential for experiment, comparing ideas, investigating production possibilities and linking design details and tooling (Mr Latimer likes to design his own jigs).

From 1952-55 he devised further unit furniture - shelving, cabinets and so on - working towards simple sections and economic joints. This found direct application in a number of showrooms, bookshops and schools. He also designed adaptable exhibition and display units.

Three years ago enquiries for designs for quantity production began to take up much of his time, and he found that his workshop facilities enabled him to develop prototypes far more quickly than would otherwise have been possible.

In his work as a consultant, Mr Latimer has occupied himself primarily with the design of bedroom furniture and chairs (notably for Vono Ltd and the Loughborough Cabinet Manufacturing Co), and furniture remains his main concern. However, he regards himself as a general product designer and has, in fact, evolved light fittings, plans for prefabricated houses and small engineering devices. All design work which require ingenious solutions interests him. He continues to produce experimental designs for furniture that he markets himself, and he is also working on a new group of chairs and a hi-fi radio-gram unit.

A positive approach to the designer's vocation is revealed in his opinion that "the designer serves the community and needs to understand the part he and his work play in it"; and he adds "to design is not just a job but a kind of mania".

BERNARD ORNA

Medal for designer

Robert Nicholson, 40, is the first designer to receive the Royal Society of Art's *Benjamin Franklin* medal. This award was instituted in 1956, and is given annually "to individuals who have attained early distinction, with promise of future achievement, in the promotion of arts, manufactures and commerce". The previous recipients were Professor F. C. Williams, Peter Ustinov and Henry George Nelson; this year, however, the medal has been awarded for "skill in design".

Robert Nicholson was born in Australia; he came to this country at the age of 10 and shortly after the war went into partnership with his brother Roger. The work of the two brothers is well known to the readers of DESIGN - in fact The Design Centre itself



Robert Nicholson

was designed by them. Robert Nicholson's recent work includes the interiors for the Colour, Design and Style Centre of the Cotton Board at Manchester, interior decoration schemes for the *Caledonian* hotel in Edinburgh and the Wall Paper Manufacturers Ltd's headquarters in London (DESIGN 128 36-37). He has also produced many designs for wallpapers and fabrics.

Psychologist for instruments

Dr Norman Loveless, a lecturer in psychology at Queen's College, Dundee, has been appointed a consultant to Smiths Aircraft Instruments Ltd.

Scientific study of the pilot's ability to respond to the information with which he is presented, and

research into the best way of presenting this information began during the last war, and has of course been intensified since the introduction of high speed aircraft. Dr Loveless has been engaged for some time in research in this field, and Smiths' report that he will advise the firm in the light of the considerable body of knowledge that has been built up over the last 15 years.

Director of typography

John Westwood has recently been appointed head of the typographic design and layout section in HM Stationery Office. He succeeds Alan Dodson, who has taken up an appointment in South Africa.

Mr Westwood, 40, was previously a lecturer at the Carlisle College of Art, and also taught at the Coventry College of Art. He will be responsible (under the general guidance of Sir Francis Meynell, who is honorary typographic designer to HMSO) for the design and layout of government publications and other printed matter.

OBITUARY

Peter Floud

As Keeper of Circulation at the Victoria & Albert Museum, Peter Floud was that rare kind of scholar who was able to apply to the material culture of his own day his vast store of knowledge and his ability to discriminate. Britain has great need of such people



Peter Floud

and his death at the age of 48 is a loss we can ill afford. He will be missed not only in the museum world in which he was an outstanding influence, but also in the textile industry where his researches were of real value in enhancing the reputation of the industry. Mr Floud was responsible for a substantial re-assessment of William Morris, firstly, by isolating and re-examining the work which genuinely came from his hand, and secondly, by drawing a clear distinction between what Morris preached and what he practised as an industrial designer. In so doing he defined for posterity the precise character of Morris's contribution to British design. In a broader field, the research and collection he did for the exhibition of *Victorian and Edwardian Decorative Arts* in 1952, established for the first time a corpus of scholarly detail where previously fancy and ignorance had been more frequent than facts. His relentless detection has preserved for us attributable examples of that period which otherwise might have disappeared for ever, and he established who were the designers and how they were influenced.

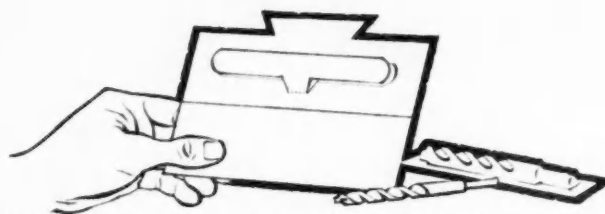
Student designers and scholars who depend on

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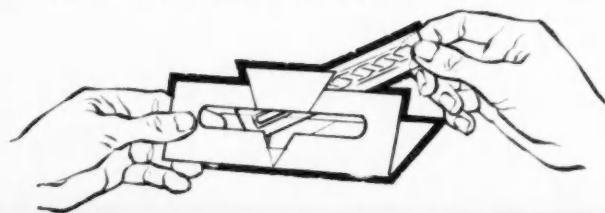
DESIGNERS ARE TURNING TO BEXFILM



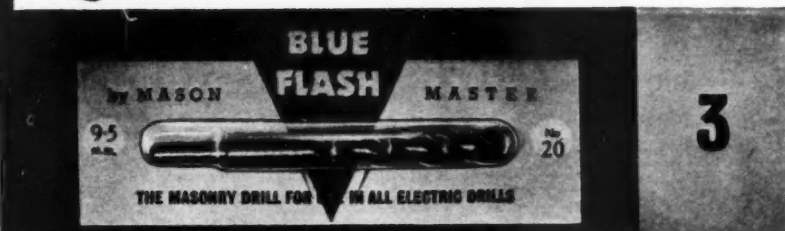
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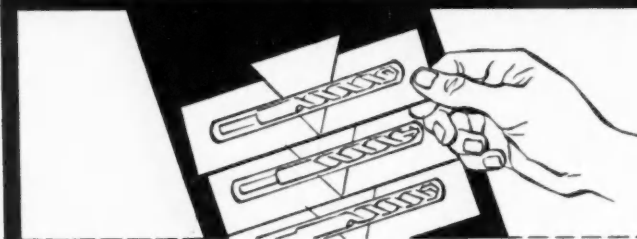
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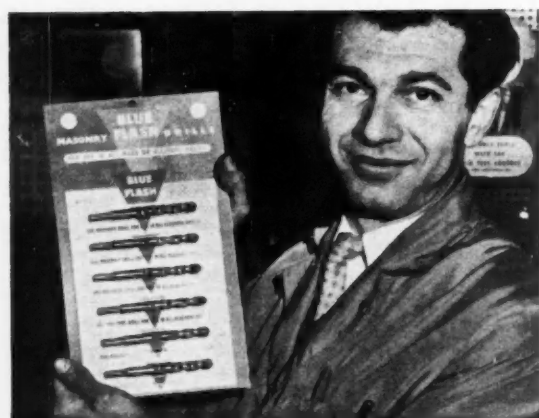


4

THE BASIS OF NEW IDEAS FOR

Windopaks

BY JOHN DICKINSON & CO. LTD



Strong, exceptionally clear, easy to fabricate, Bexfilm opens up new avenues in design. Windows, transparent sides and complete transparent packs—packs which protect the goods and do a strong selling job—all the time.

Take this new display 'Windopak' designed and produced for 'Blue Flash' Masonry Drills Ltd which incorporates several new ideas. Clever design enables one layer of Latex adhesive on the detachable card (1) to serve both as (2) a closure to the Bexfilm 'bubble' and (3) to attach the pack to the multiple display card which is also latexed. This means considerable economy in production and also (4) that individual packs can be detached without visible damage to the display.

Again, more economy, the Bexfilm display bubbles for all sizes of drill are moulded to 4 overall sizes enabling standardization of the cardboard components of the display. Vacuum forming makes it easy to modify the container for different sizes of drill.

For sales appeal plus economy, designers are turning more and more to Bexfilm. The Technical Service Department of BX Plastics will be happy to assist progressive designers in the developments of new packaging ideas.



BX PLASTICS LTD. A subsidiary of The British Xylonite Co. Ltd.

For further details of the latest in individual *Windopaks* write to John Dickinson & Co. Ltd., Card and Board Department, Apsley Mills, Hemel Hempstead, Herts.

Cellulosics Sales Division, Manningtree, Essex. Telephone: Manningtree 401

provincial museums are particularly in his debt for his foresight and energy in his administration of the Grant in Aid scheme whereby local curators can receive financial help in order to extend their collections.

Peter Floud was essentially a positive person and I feel sure he would have wished his many friends to remember the achievements in which he was so vitally concerned rather than mourn the tragedy of his early death.

J. NOEL WHITE

EXHIBITIONS

Exercises in ingenuity

The *Rooms to a Budget* exercise was one of the most popular features at this year's *Furniture Exhibition*. Five designers, allocated £2,000, £1,000, £800, £400 and £100 respectively, furnished the same two rooms (based on a typical ground floor area of a town house).

Margaret Casson, in furnishing her luxury room, ABOVE RIGHT, seems to have had to exercise as much ingenuity getting through her £2,000 budget, as Thurloe Conolly, who had only £100 to furnish the same area, BELOW RIGHT. Structural changes to the luxury room account for a generous share of the generous budget. Part of the floor area is raised 1ft, and the ceiling is lowered; the fireplace and dividing wall are dispensed with (no other form of heating, however, has been provided). Other luxuries include the gold leaf decorated panels on the wall in the dining area, Italian green slate floor tiles and a Mongolian goatskin rug. The fireplace wall is hung with stretched silk.

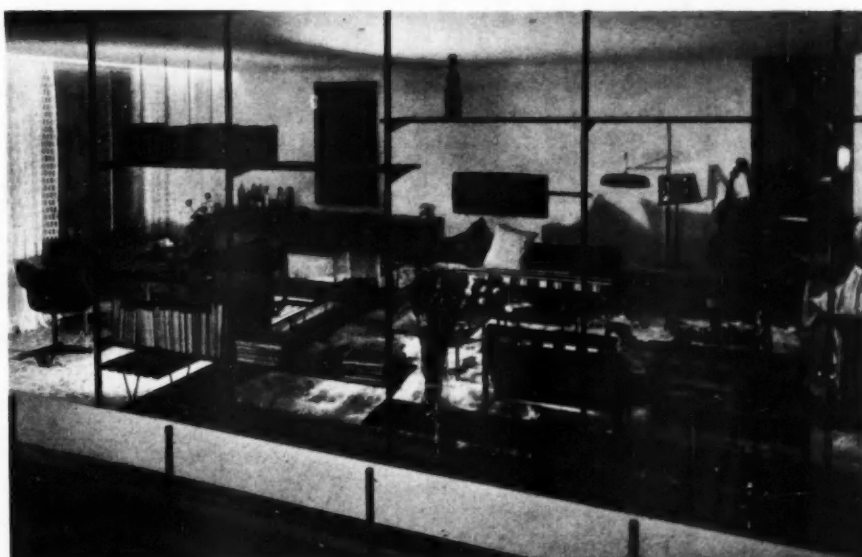
Thurloe Conolly's £100 room, contains several 'do-it-yourself' features, such as the desk flap, left, the lamp shades (made from children's balloons and tissue paper) and the curtained wardrobe areas. Pillow ticking is used for the curtaining. The unavoidable asceticism of the décor is relieved by the gay light fittings, and the use of pictures, flowers and ornaments.

Experiments of this kind, however, make the *Furniture Exhibition* one of the most stimulating events of the exhibition year. Since 1957 when the overall design was put in the hands of Misha Black and Design Research Unit, the exhibition has grown in prestige and interest – not necessarily because the design standards of the exhibits continue to improve, but because of the unifying nature of the stands and the fact that every detail of the décor is carefully considered – from the impressive central features, to the design of lighting fittings, direction notices and enquiry desks.

Trade fair in Australia

Australia is holding its first large scale trade fair in Sydney from August 1 – 12, 1961. Exhibits will range from business machines, machine tools, electrical equipment, television sets, atomic energy equipment, plastics, etc, to toys, fashion clothing and hardware designs. Further details about British participation in this fair are available from Industrial and Trade Fairs Ltd, Drury House, Russell St, Drury Lane, London WC2.

Sir Norman Kipping, director-general of the Federation of British Industries, spent a month in Aus-



Two of the Rooms to a Budget which were on display at this year's Furniture Exhibition (see Exercises in Ingenuity).

tralia recently, and on his return he announced that the FBI was investigating the possibility of holding an all-British exhibition in Australia. He felt that far too little is known in Australia about Britain's industrial and technical achievements, especially now that manufacturers are faced with formidable competition from US, Japanese and German exporters.

Exhibitions in New York

Exhibitions to be held in New York's Museum of Modern Art this year include *Today's Art Education*, May 4 – June 26. This exhibition will describe the basic aims and values of creative education in the US today. Children's work will be on show, as well as photographs of teaching in action. The second major exhibition (from June 8 – Sept 5) is devoted

to *Art Nouveau*. Under the direction of Peter Selz, curator of painting and sculpture exhibitions, this is described as a "major exhibition of design objects, furniture, typography, posters, and painting".

At home . . .

Audio Fair, Russell Hotel, April 21 – 24.

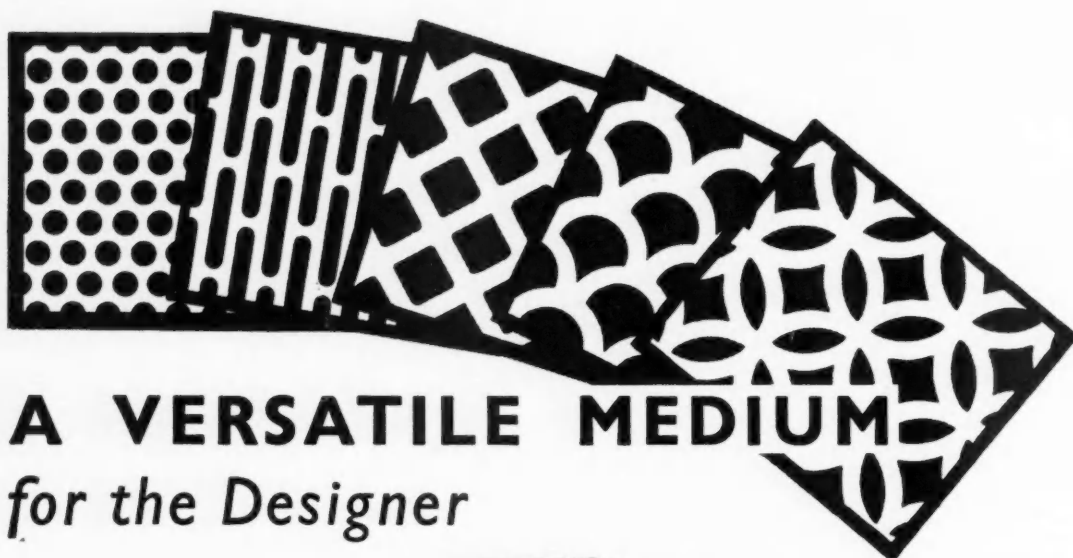
The Production Exhibition and Conference, National Hall, Olympia, April 25 – 30.

Fuel Efficiency and Powers for Industry Exhibition, Olympia, April 27 – May 6.

International Hardware Trades Fair, Olympia, May 9 – 13.

National Business Efficiency Exhibition, Bingley Hall, Birmingham, May 16 – 21.

continued on page 67



A VERSATILE MEDIUM *for the Designer*

For decorative treatments alone, perforated metal or plastic offers almost unlimited scope, but there are cases—and here is an example—where perforation is a fundamental requirement. For such applications, perforated metal provides a solution which is entirely satisfactory from both technical and aesthetic angles.

THOUSANDS OF PATTERNS

Harveys hold tools for a host of patterns suitable for small, medium or large-scale panels in most metals and in various gauges. Certain patterns can also be produced in plastic and other sheet materials, and enquiries concerning the possibility of working other materials are welcomed.

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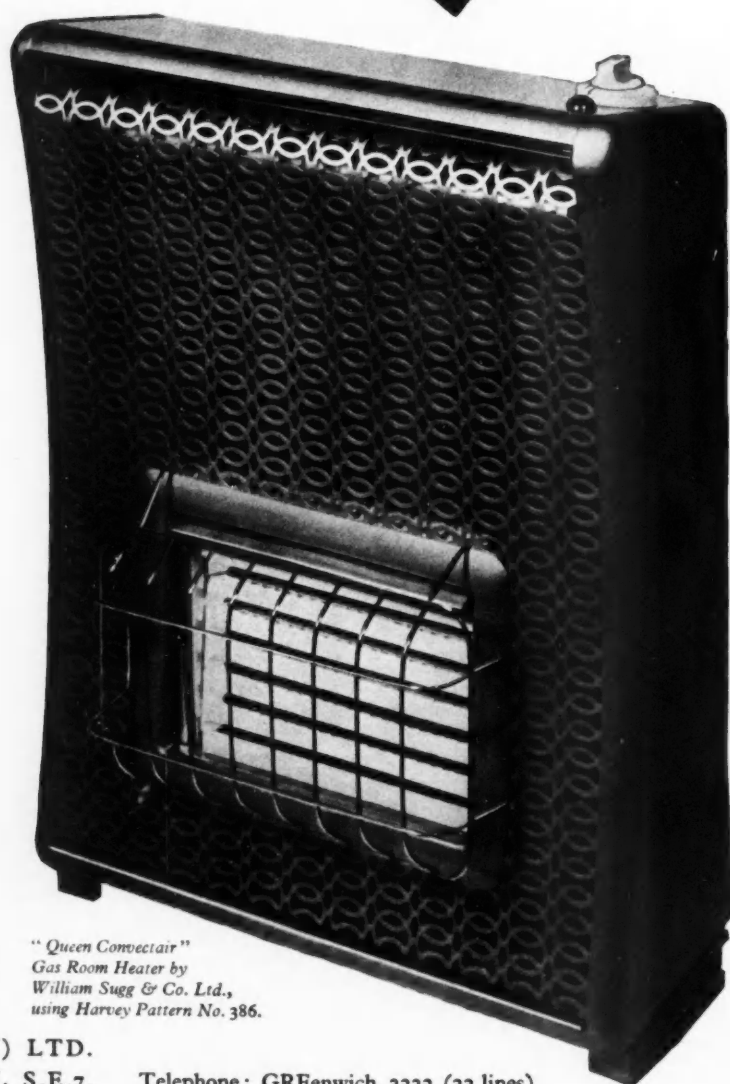
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"Queen Convectair"
Gas Room Heater by
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Medical Exhibition, St Andrew's Hall, Glasgow, May 23 - 27.

... and abroad

International Trade Fair, Paris, May 14 - 29 (apply French Chamber of Commerce, 74 Brook Street, London w1).

Industrial Fair, Budapest, May 20 - 30 (Hungarian Chamber of Commerce, Rosenberg hpu 17, Budapest V).

Swedish Industries Fair, Gothenburg, May 21 - 29 (John E. Buck & Co, 47 Brewer St, London w1).

International Fair, Luxembourg, May 26 - June 5 (Auger & Turner Group Ltd, 37/38 Margaret St, London w1).

International Trade Fair, Barcelona, June 1 - 20 (Spanish Tourist Service, 93 Piccadilly, London w1).

International Fair, Poznan, June 12 - 26 (Official Forwarding Agents, PSA Transport Ltd, 70 Old Broad Street, London EC2).

Fair behind the curtain

Czechoslovakia holds its second *International Trade Fair* in Brno from September 11 - 25. About 30 British firms exhibited in last year's fair, and several successful trading agreements were reached (including a deal to deliver a paper mill to Czechoslovakia). Further details about the fair are available from Fairs and Exhibitions Ltd, 2 Dunraven Street, London w1.

Goldsmiths in the New World

The Worshipful Company of Goldsmiths' stand at the *British Exhibition*, to be held in New York from June 10 - 26, will include modern designs as well as pieces from its rare collection of antiques. Twenty-

one firms will be represented, and the theme of the stand is to emphasise that the British tradition of design and craftsmanship in this field is still alive today. The company hopes that the exhibit will also stimulate exports to the USA.

COMPETITIONS

Better litter bins

The CoID, in association with the Ministry of Housing & Local Government and the Department of Health for Scotland, invites manufacturers to submit new designs for litter bins. The competition is announced in response to the demand for litter bins of all types created by the *Litter Act 1958*, which revealed the shortage of inexpensive, well designed litter bins for the street and public open spaces.

The competition is limited to *bona fide* manufacturers willing and able to execute orders to the designs submitted; these must be in prototype form or production samples.

The competition will be judged by the CoID's Street Furniture Panel, which will be advised on the technical aspects by an independent assessor, H. Ardern, director of public cleansing, City of Westminster. The promoters will give wide publicity to an exhibition of the winning designs. This will be staged in a prominent position in central London, and public authorities and other buyers will be invited to the exhibition.

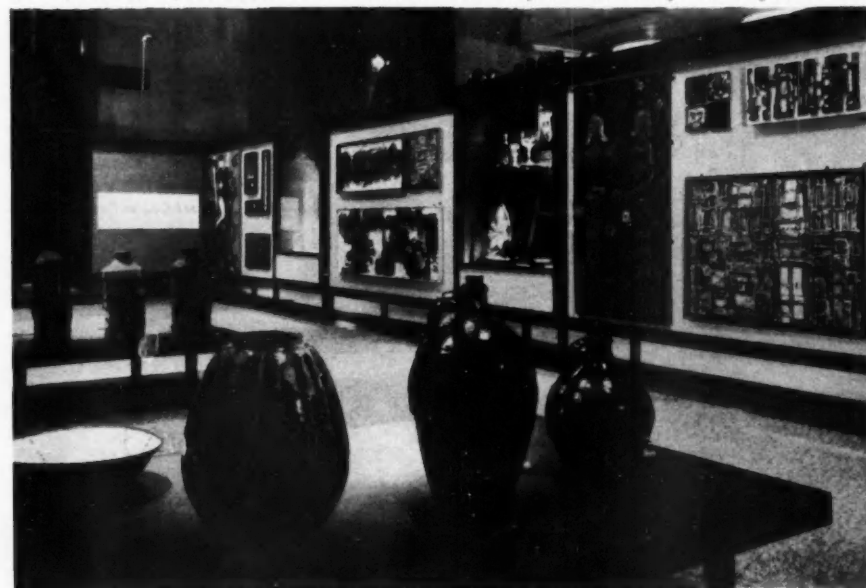
Those submissions which in the opinion of the judges reach a sufficiently high standard will be included in the CoID's 'Design Index' and its *Approved List of Street Furniture*.

The closing date for the receipt of applications is

should do much to convince those who still believe for one reason or another that craftsmen are a left-over from a bygone age and should be treated as such, that they are wrong. There is a new vitality here and a new confidence born of success."

The confident craftsman

The illustration shows part of the exhibition *The Creative Craftsman* staged by The Crafts Centre of Great Britain at the RIBA recently. HRH The Duke of Edinburgh, speaking at the opening ceremony, said: "This exhibition



June 1; full details, conditions and entry forms are available from Peter Whitworth, CoID Street Furniture Panel, 28 Haymarket, London sw1.

Prizes for plastics products

Shell Chemical Co Ltd is sponsoring a competition for "the design of an article or appliance for the industrial, domestic, institutional or public services market, which could, with advantage, be made wholly from or incorporate a major proportion of either Shell polypropylene or Shell high density polyethylene". Prizes worth £1,000 are to be awarded, and the competition will be judged by Paul Reilly, director CoID, Robin Day, the designer, and two representatives from Shell. The last date for receipt of entries is June 30; entry forms and full details are available from the Plastics Division, Shell Chemical Co Ltd, 170 Piccadilly, w1.

Ideas for safety

A National Safety Contest (administered by the British Safety Contest Trust under the chairmanship of R. Reader Harris, MP) is being launched to initiate a nation-wide campaign in search of safety ideas, devices and inventions. The contest is open to all UK residents, who are asked to submit an entry designed to further individual or collective safety in all its aspects - at home, at work and on the roads.

Thirty-five leading companies have agreed to sponsor the project financially and cash prizes will be awarded to winning entries which will be judged by an independent panel. Entries should reach the British Safety Contest Trust, 36/38 Whitefriars Street, London EC4 by April 30.

The Royal Society for the Prevention of Accidents has announced details of a National Road Safety Poster competition. The competition is open to art students and designers, etc, and to school children in various age groups. The poster design should depict or suggest the theme *The Safety of Children on the Road*, and a first prize of £200 will be awarded, as well as other prizes. The last date for receipt of entries from art students and designers is September 26; school children entrants should apply to their local road safety committee for details of closing dates. Further particulars are available from the Royal Society for the Prevention of Accidents, 52 Grosvenor Gardens, London sw1.

Trophy for the babies

The Royal Automobile Club's *Dewar Challenge Trophy* for the most outstanding British technical achievement in automobile engineering during 1959 has been awarded to the British Motor Corporation. The award is for the BMC's and Alec Issigonis's work in designing and manufacturing the Morris *Mini-Minor* and Austin 7.

Awards for product engineering

Product Engineering, an American weekly, has instituted a series of annual awards "for achievement in product development". A new panel of judges will be appointed each year (this year's panel includes Walter Dorwin Teague). "Excellence of engineering and appearance, fulfilment of design objectives... and the degree and quality of integration

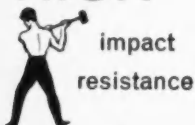
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EASY

to style

HIGH



impact
resistance

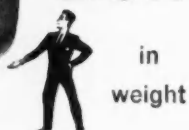
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LESS

to produce



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in
weight

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or p.v.c.
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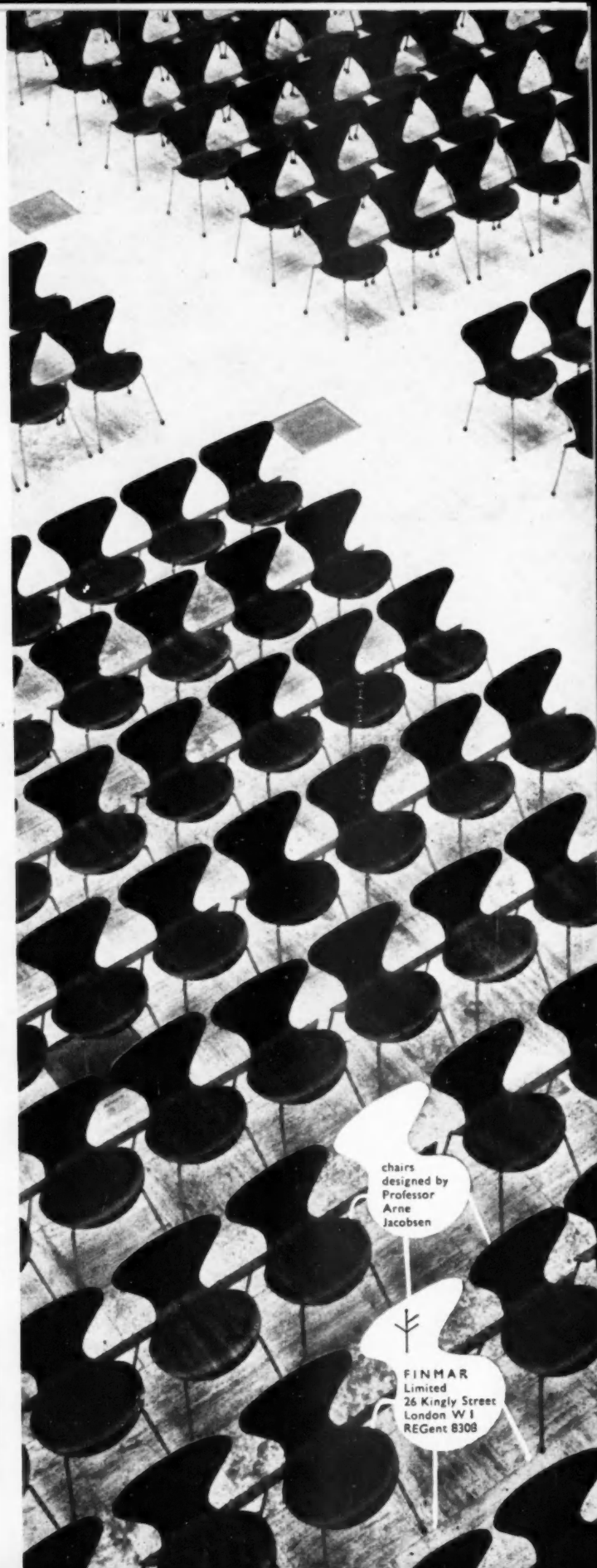
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between engineering, design, manufacturing and marketing personnel and resources" will be considered in selecting the awards. The results of this year's awards will be announced in May.

Cotton industry scholarships

The cotton industry is offering scholarships to students seeking a career in textiles. (Since the scheme was first introduced in 1957 more than 60 university entrance scholarships have been awarded.) Full details of the scholarships, and also of other awards for full time technical college courses and post-graduate studies, are given in the Cotton Board's booklet, *Tomorrow's Leaders*, available from The Cotton Board, Careers Advisory Service, Royal Exchange, Manchester 2.

TRAVEL

Design tour of Italy

The CoID is arranging a fortnight's tour of Italy for directors, designers and design executives. The tour, from September 17 - October 1, will include visits to the Milan *Triennale* and the Venice *Biennale*. Further details are available from D. Johnston, CoID, 28 Haymarket, London SW1.

Travel grants to the USA

The English-Speaking Union has announced details of the 1960-61 Ford Foundation English-Speaking Union Travel Grants to the United States. Four grants are to be awarded in the field of the arts; they will be awarded to men and women who have not previously visited the United States; they must be "opinion-forming people . . . who, apart from professional or personal qualifications, have already shown powers of leadership and initiative". The recommended length of the visit is 56 days; the grant may be taken up any time after mid-September 1960, but the tour must be completed by July 1, 1961. The closing date for applications is May 7, 1960. Further particulars and entry forms are available from The Secretary, The English-Speaking Union, 37 Charles Street, Berkeley Square, London W1.

CONFERENCES

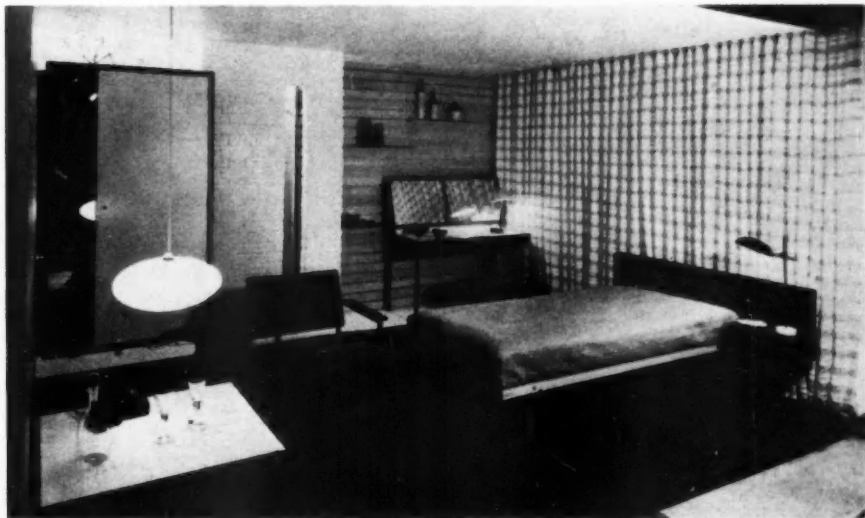
Innovators and Aspen

The theme of the *International Design Conference* to be held in Aspen from June 19 - 25, will be *The Corporation and the Designer*. The conference "will inquire into the opportunities and the limits of action for innovators in our twentieth century technological society".

Speakers for the tenth anniversary conference will be announced later. They will include senior executives of leading international corporations, as well as experts in the field of science, sociology, and design. Further details can be obtained from the Executive Secretary, 6 East Lake Street, Chicago 11, Illinois, USA.

Lighting discussed

The Illuminating Engineering Society is to hold its summer meeting at Harrogate from May 15 - 18. Three papers will be read, and subjects to be considered at the discussion meetings include task analysis, luminance and glare, modelling and colour,



Bedroom settings

Helen Challen, who designed this room setting for The Design Centre's recent And so to Bedrooms exhibition, believes that many women nowadays prefer a bedroom with simple, almost severe lines. Her colour scheme is warm but muted; the walls are white and a length of unbleached

linen gauze hangs across the whole length of the wall above the bedhead. Paul Gell designed a second room setting for this exhibition; beds, bedroom furniture and bedroom accessories were also on display. (Points to consider when choosing a bed were discussed in DESIGN 135/46-47.)

industrial area floodlighting, maintenance and lighting calculations.

Details of the meeting can be obtained from the Secretary, IES, 32 Victoria Street, London SW1.

Textile conference

The Textile Institute is to hold its Jubilee conference at Church House, Westminster, from May 30 - June 3. Speakers will include Sir Harry Melville, of the Department of Scientific and Industrial Research, Robert Nicholson, the designer, and Ernest Dichter, who is president of the Institute for Motivational Research, Inc, in the USA.

MISCELLANEOUS

New lights, and less clutter

Misha Black, professor of industrial design (engineering) at the Royal College of Art, and a senior partner of Design Research Unit, has been appointed consultant designer to Claudgen Ltd. This firm, a subsidiary of The General Electric Co Ltd, is an important manufacturer of illuminated signs and displays in the UK.

Claudgen's believes that this is the first time in any country that an industrial designer of international repute has become associated directly with the illuminated sign industry. S. Dickson Moysse, the firm's managing director, says: "We feel that illuminated sign design has tended to fall into a rut owing partly to the lack of new blood in the industry itself and partly to the lack of top-level influence from outside the industry. We are convinced that Professor Black's experience and abilities will make a great contribution towards improving design standards in the illuminated sign field". (An article on the

general paucity of current illuminated sign design was published in DESIGN 111/49-54).

Claudgen's decision to improve the design of illuminated signs is all the more interesting in the light of the *Voluntary Code of Standards for Advertising on Business Premises* recently introduced by the Advertising Association. This code is aimed at diminishing the clutter of non-illuminated advertisements that decorate our streets and shops. (Under the *Town and Country Planning [Control of Advertisements] Regulations, 1948*, non-illuminated advertisements can be put up on shops and business premises without the consent of a local planning authority.)

This voluntary code, which becomes effective on April 1, will be administered by a consultative committee set up under the auspices of the Advertising Association; its chairman will be the Rt Hon Lord Luke.

US opportunities in the United Kingdom

A UK industrial development office has recently been opened in New York. Headed by A. Currall, an assistant secretary at the Board of Trade, the office will make known what the United Kingdom has to offer to the United States' manufacturer, and will advise on the opportunities of setting up manufacturing enterprises in the United Kingdom. The Government of Northern Ireland is also appointing staff to this office.

International paper sizes

Two years after the International Standards Organisation adopted a range of stationery sizes, already widely used on the Continent for many years, the HMSO has now decided to change over to these standard paper sizes. As one of Britain's greatest

continued on page 71

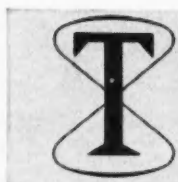


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paper consumers, the demand the HMSO makes on the mills will be a considerable inducement to paper manufacturers to take this scheme to their hearts.

LETTERS

Professional communications

SIR: As an English student at the Art Center School in Los Angeles I was particularly interested to read your account in *Pointers* (DESIGN 133/27) of George Jergensen's visit to The Design Centre. The broadening divergence between the language used at home and in America makes it increasingly difficult for an Englishman and an American to engage in brisk easy conversation. I find it often takes me more than one try to make my exact meaning clear, and frequently I only manage to do so by using American terms.

Designers and design publications seem to be constantly coining phrases, developing expressions and assembling a kit of jargon which they can use in most of their professional conversation. Concurrently in varying degrees two sets of designers' jargon are being developed – one in England and one in America. When designers from the two countries meet and use their home-spun terms in conversation the thread of the conversation is very likely to become tangled and the conclusions rather loosely defined.

In this case Jack Howe's conclusion that Art Center is concerned only with 'applied styling' is quite erroneous. We are always urged to be original in our designs and to eschew dependence upon design clichés. Every encouragement is given us to explore fresh ideas and new approaches to problems. Usually all that relates our designs to products which are actually being made currently are proprietary mat-

Packs and pink elephants

Reed Corrugated Cases Ltd borrowed an elephant to launch a new pack for a bumper can of beer; prospective purchasers are urged to "take home an elephant".



erials and features which would facilitate manufacture and assembly. These, unfortunately, are the bounds within which a practical designer must work.

R. D. HODGSON
8115 Waring Avenue
Los Angeles 46
California
USA

Motorways: letter forms for road signs

SIR: Your correspondent, Herbert Spencer (DESIGN 132/71), underestimates the amount of study that has been done on the subject of letter forms for motorway signs. The adoption of lower case lettering by certain countries abroad is the outcome of fashion and prejudice and the obvious benefits of conformity do not seem, to us at any rate, to justify the adoption of an otherwise inferior system. The little experimental work that has been carried out, ie, by M. Tinker and D. Paterson (University of Minnesota) and T. Forbes (University of California) indicates that names in capitals can be read from a far greater distance. They are therefore, more efficient for the purpose on hand.

In our view, the Ministry of Transport is well to the fore in its design of traffic signs (apart from the motorways experiment), although the signs need, generally, to be about 33 per cent larger. The proportion of letter to reflectorised panel, and of panel to overall sign, has the correct economy; diagrammatic maps are properly informative and fit well into the layout. The Kindersley alphabet was an attempt to squeeze an even greater legibility into these signs through the use of serifs and enlargement of counters. Some may not find it pleasing to the eye and we are, of course, entirely in agreement with Aidron Duckworth (DESIGN 132/71) in advocating the choice of the better-looking of two equally practical designs; but in this field the practical considerations must be paramount.

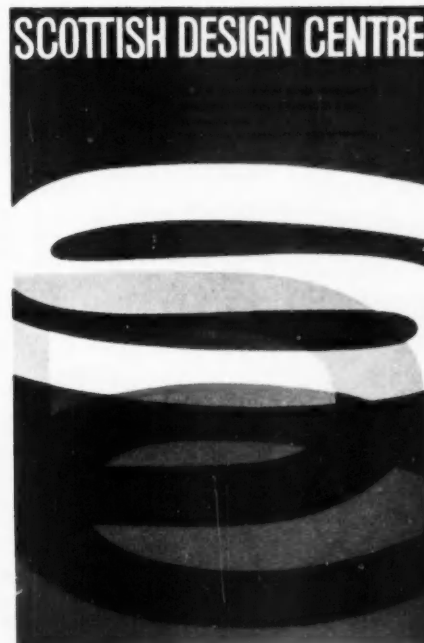
As for Mr Spencer's comments on the problem of painting such a letter, it is the sans-serif letter which is the most difficult to paint, as every sign-writer knows. When it comes to 'applying' them for road signs, the difficulties are much the same for all letters.

DAVID KINDERSLEY
BROOKE CRUTCHLEY
The University Press
Cambridge

The British bus

SIR: Dennis Gill's article about town buses (DESIGN 130/48-51) first of all asks how the industry is going to increase its appeal to passengers in order to meet competition from the private car; and then rather surprisingly suggests that it is a mistake in the London Transport *Routemaster* to try to provide as many passengers as possible with a seat.

All our experience shows that travelling Londoners do prefer to have a seat, even when they are travelling only for short distances; and this is confirmed by what we have learned from experiments of 'standee' buses – horrible word! – in other British cities. Mr Gill is evidently disappointed because the *Routemaster* resembles its predecessors in a good many features of the body design. Is it possible that he is influencing novelty to be the same thing as improvement?



Poster for Scotland

F. H. K. Henrion has designed this new poster for the CoID Scottish Committee. Screen-printed in three colours, it draws attention to the fact that the Scottish Design Centre now has a permanent exhibition programme.

When he writes that "conditions for the conductor remain unchanged, except that there is now sufficient standing space for him beneath the stairs" he seems to have overlooked that the gangways on the *Routemaster* are 25 per cent wider than on the existing standard *RT* bus. This represents a great improvement for the conductor; and of course his principal piece of equipment – the ticket machine which has been introduced over the past eight years – is not part of the bus itself.

R. M. ROBBINS
Chief Public Relations Officer
London Transport Executive
55 Broadway
SW1

The responsibility of management

SIR: Good design is primarily the responsibility of management. This clearly emerges from the article *An Enquiry into Designer-Client Relationships* (DESIGN 132/48-53), and is certainly borne out by my own experience. I believe this factor to be so important that design in relation to management should be studied at the advanced training level. The need for a designer to be able to express his views clearly and firmly to all levels of management and staff must be recognised by educationalists and be included in the syllabus of art schools and colleges.

As design is very much a matter of human relationships and communications, no designer can ignore this part of his function if he is to influence

continued on page 73

our 8 year baby!

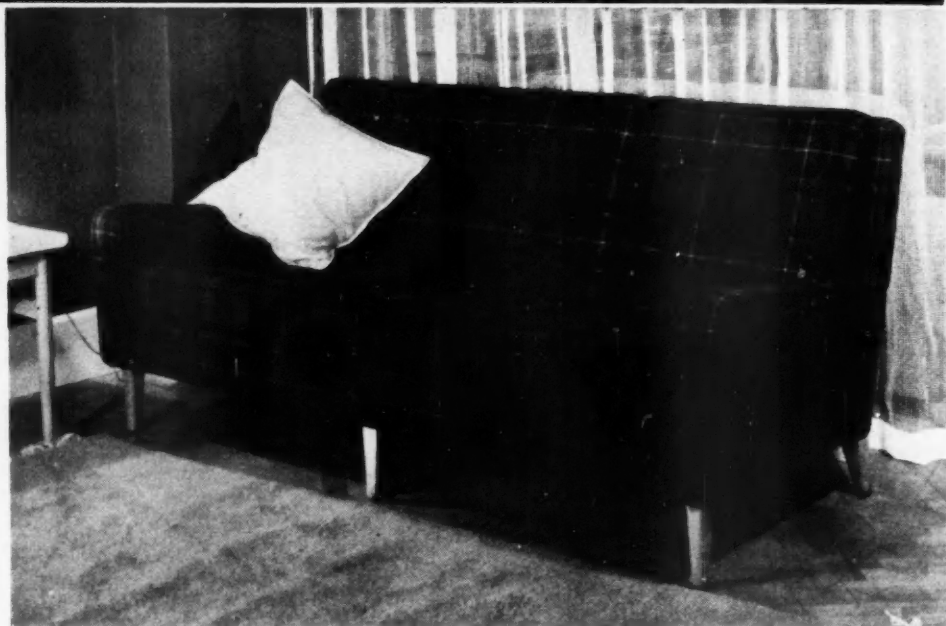


In these days when to stand still for five minutes is considered almost an insult, it is refreshing to show a design which is even more popular today than when it was introduced 8 years ago. It is, of course, exceptionally comfortable; an important contribution to its success; also the back is really a back and high enough to support the whole spine. The armchairs are just as effective.

Incidentally, most Ian Henderson designs and decorations are long lived - quality must out. Come to our showrooms and see all our models.

Ian Henderson Ltd

184 SLOANE STREET, LONDON, S.W.1 BEL 3271/2
(200 yards from Knightsbridge on the left)



'The Cockerel', a poster designed for London Transport by 'Victoria'. It is one of the series of full colour prints of famous London Transport posters, which includes the work of Edward Bawden, R.A., John Minton, E. McKnight Kauffer, and many others. The average size of the prints is 6" x 5". They can be obtained, price 1s. each (postage 3d.) from the Publicity Officer, London Transport, Griffith House, 280 Marylebone Road, London, N.W.1.



management. On the other hand, if the management is ineffective, and the firm is without a policy, it is virtually impossible to achieve satisfactory results.

However simple or complex the management structure may be, the essential element is trust – trust between designer and key personnel. To achieve this harmony may well be the main task of the designer, so much may depend on his personality and powers of persuasion.

ROBERT CANTOR
The Cottage
Over Whiteacre
Coleshill, Birmingham

BOOKS

Kontur 8

The Swedish Society of Industrial Design, Alec Tiranti Ltd, 10s

This issue of *Kontur* speaks of aspects of present day Swedish design. In his review, *A Swedish Design Cavalcade*, Dag Widman says: "The essence of present day Swedish design is beauty through restraint". It is certainly true that for the last 10 years the emphasis has been on restrained design in Sweden, and this has brought problems, because the conscious use of restraint requires a very skilled designer.

I still remember the impact made upon me as a young man in the 'thirties, when I first came into contact with the glass, pottery and silver which was then being made in Sweden. Simplicity was the basis of these designs, but they also had colour, variety of line and above all, the quality of virility which comes from the inspiration an artist gains when he has to fight for his ideas – qualities which seem to be lacking in a great deal of present day Scandinavian work.

The idea that everyday things should be well designed is now accepted in Sweden, but what is lacking is discrimination among the people who buy. Tricks in styling are confused with design. Too often more attention is paid to a designer's name label than the quality or design of the product. The dangers of this situation are realised in Sweden, and more attention is now given to the encouragement of artistic appreciation and development in the young at school and to training more designers. This issue of *Kontur* also includes an interesting account of a comprehensive school at Kvarnberg and also the State School of Arts, Crafts and Design.

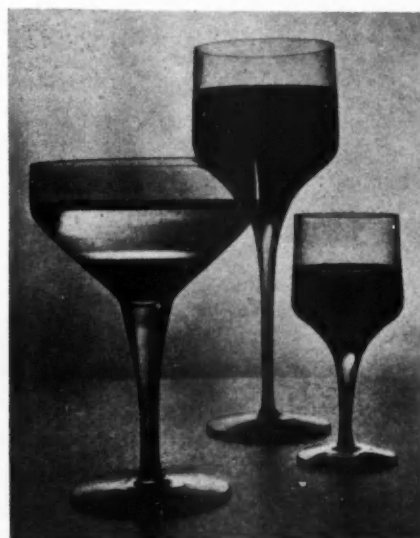
The magazine is interesting because it gives a Swedish viewpoint on Swedish design. There are indeed signs of more robustness and it will be useful to see whether, in a future issue, *Kontur* could present us with another aspect of Swedish design.

R. STENNETT-WILLSON

The mechanization of thought processes

HMSO, 2 vols, 50s each

A symposium on *The Mechanization of Thought Processes*, held in 1958, brought together 200 scientists who were studying such different subjects as character recognition, learning, mechanical language translation, automatic programming, industrial planning, clerical mechanization and neurophysiology. They listened to 32 papers and these, together with the



Wine glass designed by Sven Palmquist and made by Orrefors, illustrated in *Kontur 8*.

discussions which followed, are reproduced in these two volumes.

One can imagine the difficulties the organisers had in deciding on a suitable title for this meeting. But their final choice is somewhat misleading. It gives the impression that the symposium dealt with mechanistic devices capable of simulating human thought. In fact these collected papers deal mainly with new theoretical and practical ideas in control engineering, with programming and use of present and projected computers, and with certain functions of the human nervous system considered from the viewpoints and concepts that have arisen in the study of control systems and computers. Each of these subjects is worthy of study in its own right and some are of great practical value.

Most of the contributions are highly technical and some are very specialised. As would be expected they vary in quality from the ordinary to the very good. This makes it almost impossible to make a general statement about the volumes as a whole. The range of subjects covered is shown by the following titles quoted at random from the index: *The Mechanism of Habituation*; *Pronoun Reference in German*; *Two Theorems of Statistical Separability in the Perceptron*; *To What Extent Can Administration be Mechanized?* From such a mixture a scientist who is directly concerned with similar problems will find much of value. On the other hand the general reader will have difficulty in judging one section against another, or in drawing overall conclusions from the 1,000 pages that make up the two volumes.

This criticism raises a matter of wider interest. There is no doubt that these gatherings, allowing discussions between scientists from different disciplines, are both stimulating and useful. Personal contacts and the swapping of ideas and difficulties often lead to major scientific advances. But when the discussions are taken down word for word and then published, this personal aspect is lost and the

reader can never capture the general feeling of the meeting. Moreover, present-day scientists and technologists are overwhelmed with a mass of printed words (indeed a few of the papers at this particular symposium dealt indirectly with this matter), so a reproduction of the many thousands of words which are said at such gatherings adds further to the burden.

It is realised that *The Mechanization of Thought Processes* is intended as a record of the symposium. But at the same time it is regretted that a more ruthless editorial policy could not have been applied. This may have resulted in a smaller, more readable book. Such a book could have retained all the useful scientific detail and at the same time given a clearer indication of the important general principles which lay behind the discussions.

K. G. WILLIAMS

This month's cover

This month's cover is based on *September Garland*, a fabric design by Doreen Dyall which is included in Sanderson's centenary collection (see page 45).

Addenda

DESIGN 135/69: the biscuit packs for John Hill and Son Ltd were produced for the Advertising Art Agency Ltd by Roy Kemp.

DESIGN 133/57: the *StarMix* electric mixer was designed by Goertz Industrial Design, Inc.

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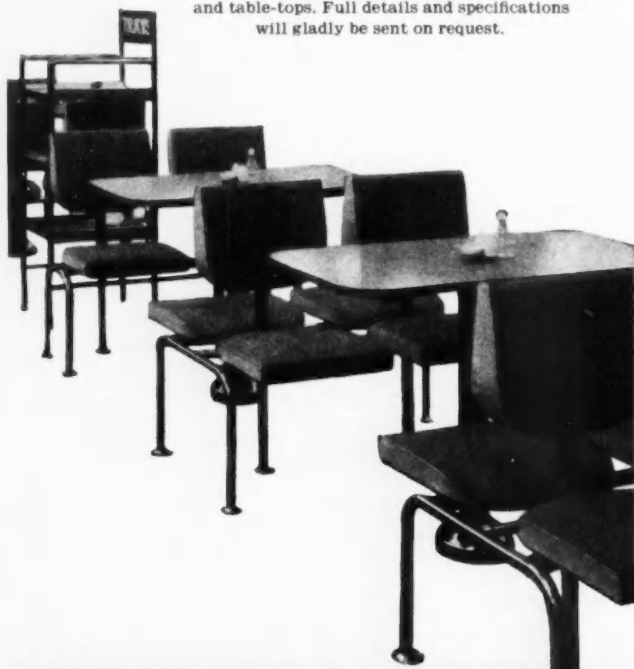
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
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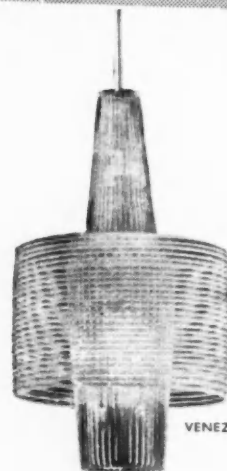
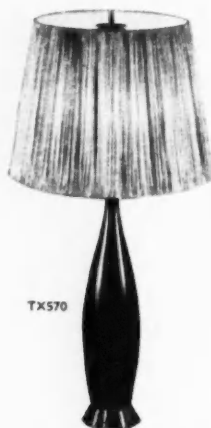
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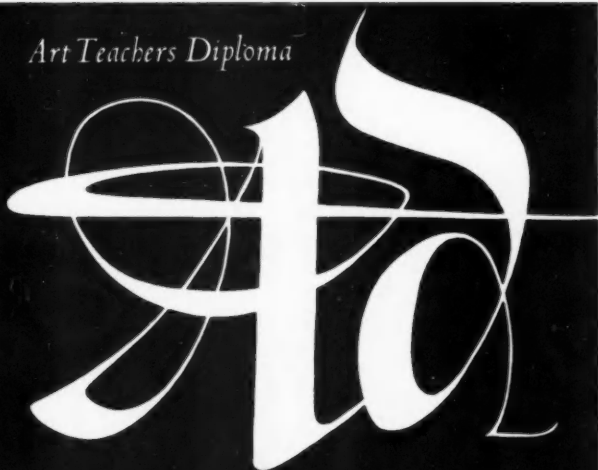
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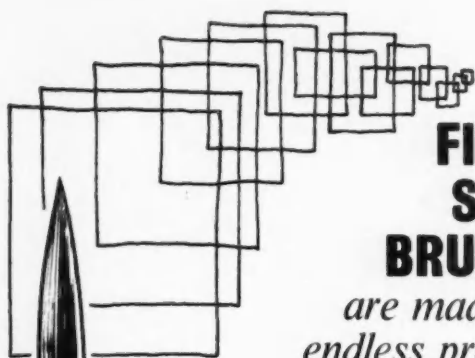
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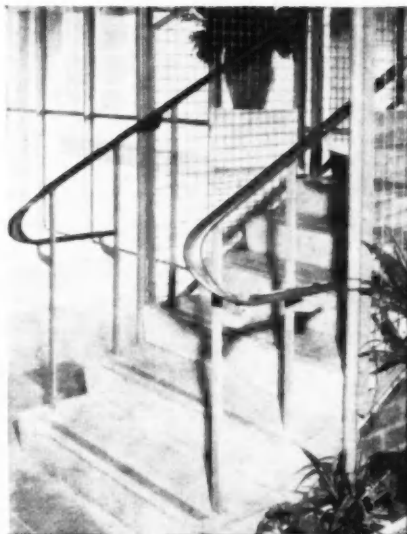
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